



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA-R09-OAR-2015-0204; FRL-9935-61-Region 9]

Approval and Promulgation of Implementation Plans; Designation of Areas for Air Quality Planning Purposes; California; South Coast Moderate Area Plan and Reclassification as Serious Nonattainment for the 2006 PM_{2.5} NAAQS

AGENCY: U.S. Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve state implementation plan (SIP) revisions submitted by California to address Clean Air Act (CAA or Act) requirements for the 2006 24-hour fine particulate matter (PM_{2.5}) national ambient air quality standards (NAAQS) in the Los Angeles-South Coast Air Basin (South Coast) Moderate PM_{2.5} nonattainment area. These SIP revisions are the 2012 PM_{2.5} Plan, submitted February 13, 2013, and the 2015 Supplement, submitted March 4, 2015. The EPA is also proposing to reclassify the South Coast PM_{2.5} nonattainment area, including reservation areas of Indian Country and any other area of Indian Country within it where the EPA or a tribe has demonstrated that the tribe has jurisdiction, as a Serious nonattainment area for the 2006 PM_{2.5} NAAQS based on

EPA's determination that the area cannot practicably attain this standard by the applicable Moderate area attainment date of December 31, 2015. Upon final reclassification as a Serious area, California will be required to submit a Serious area plan including a demonstration that the plan provides for attainment of the 2006 PM_{2.5} NAAQS by the applicable Serious area attainment date, which is no later than December 31, 2019, or by the most expeditious alternative date practicable, in accordance with the requirements of part D of Title I of the CAA.

DATES: Any comments must arrive by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit comments, identified by docket number EPA-R09-OAR-2015-0204, by one of the following methods:

- Federal eRulemaking Portal: www.regulations.gov.

Follow the on-line instructions.

- E-mail: tax.wienke@epa.gov.

- Mail or deliver: Wienke Tax, Office of Air Planning (AIR-2), U.S. Environmental Protection Agency Region 9, 75 Hawthorne Street, San Francisco, CA 94105.

Instructions: All comments will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes Confidential Business

Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, and the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to the EPA, your e-mail address will be automatically captured and included as part of the public comment. If the EPA cannot read your comments due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment.

Docket: The index to the docket (docket number EPA-R09-OAR-2015-0204) for this proposed rule is available electronically on the www.regulations.gov website and in hard copy at EPA Region 9, 75 Hawthorne Street, San Francisco, California, 94105. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section below.

FOR FURTHER INFORMATION CONTACT: Wienke Tax, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region 9, (415) 947-4192, tax.wienke@epa.gov

SUPPLEMENTARY INFORMATION: Throughout this document, “we,” “us,” and “our” refer to the EPA.

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I. Background for Proposed Actions

On October 17, 2006, the EPA revised the 24-hour national ambient air quality standards (NAAQS or standard) for PM_{2.5}, particulate matter with a diameter of 2.5 microns or less, to provide increased protection of public health by lowering its level from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³ (40 CFR 50.13).¹ Epidemiological studies have shown statistically significant correlations between elevated PM_{2.5} levels and premature mortality. Other important health effects associated with PM_{2.5} exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), changes in lung function and increased respiratory symptoms. Individuals particularly

¹ See 71 FR 61224 (October 17, 2006). The EPA set the first NAAQS for PM_{2.5} on July 18, 1997 (62 FR 36852), including annual standards of 15.0 µg/m³ based on a 3-year average of annual mean PM_{2.5} concentrations and 24-hour (daily) standards of 65 µg/m³ based on a 3-year average of 98th percentile 24-hour concentrations (40 CFR 50.7). In 2012, the EPA revised the annual standard to lower its level to 12 µg/m³ (78 FR 3086, January 15, 2013, codified at 40 CFR 50.18). Unless otherwise noted, all references to the PM_{2.5} standard in this notice are to the 2006 24-hour standard of 35 µg/m³ codified at 40 CFR 50.13.

sensitive to PM_{2.5} exposure include older adults, people with heart and lung disease, and children (78 FR 3086 at 3088, January 15, 2013). PM_{2.5} can be emitted directly into the atmosphere as a solid or liquid particle ("primary PM_{2.5}" or "direct PM_{2.5}") or can be formed in the atmosphere as a result of various chemical reactions among precursor pollutants such as nitrogen oxides, sulfur oxides, volatile organic compounds, and ammonia ("secondary PM_{2.5}").²

Following promulgation of a new or revised NAAQS, the EPA is required by CAA section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS. On November 13, 2009, the EPA designated the South Coast as nonattainment for the 2006 PM_{2.5} standard of 35 µg/m³ (74 FR 58688, November 13, 2009). This designation became effective on December 14, 2009 (40 CFR 81.305). The South Coast area is also designated nonattainment for the 1997 annual and 24-hour PM_{2.5} standards.³ On June 2, 2014, the EPA classified the South Coast area as Moderate nonattainment for both the 1997 PM_{2.5} standards and the

² See EPA, Regulatory Impact Analysis for the Final Revisions to the National Ambient Air Quality Standards for Particulate Matter (EPA-452/R-12-005, December 2012), p. 2-1.

³ See 70 FR 944 (January 5, 2005) and 40 CFR 81.305. In November 2007, California submitted the 2007 PM_{2.5} Plan to provide for attainment of the 1997 PM_{2.5} standards in the South Coast. In November 2011, the EPA approved all but the contingency measures in the 2007 PM_{2.5} Plan (76 FR 69928, November 9, 2011). In November 2011 and April 2013, the State submitted a revised contingency measure plan, which the EPA approved on October 29, 2013 (78 FR 64402, October 29, 2013).

2006 PM_{2.5} standard under subpart 4 of part D, title I of the Act (79 FR 31566).

The South Coast PM_{2.5} nonattainment area is home to about 17 million people, has a diverse economic base, and contains one of the highest-volume port areas in the world. For a precise description of the geographic boundaries of the South Coast PM_{2.5} nonattainment area, see 40 CFR 81.305.

Ambient PM_{2.5} levels in the South Coast have declined considerably in the past 15 years to levels just above the 2006 PM_{2.5} NAAQS. For the 2011-2013 period, the 24-hour PM_{2.5} design value for the area, based on monitored readings at the Mira Loma monitor, is 36 ug/m³.⁴

The local air district with primary responsibility for developing a plan to attain the 2006 PM_{2.5} NAAQS in this area is the South Coast Air Quality Management District (District or SCAQMD). The District works cooperatively with the California Air Resources Board (CARB) in preparing these plans. Authority for regulating sources under state jurisdiction in the South Coast is split between the District, which has responsibility for regulating stationary and most area sources, and CARB, which has responsibility for regulating most mobile sources.

⁴ See EPA, Air Quality System Report dated September 28, 2015 in the docket for today's action. "Design value" means the calculated concentration according to the applicable appendix of 40 CFR part 50 for the highest site in an attainment or nonattainment area (40 CFR 58.1).

II. Clean Air Act Requirements for PM_{2.5} Moderate Nonattainment Area Plans

In April 2007, the EPA issued the Clean Air Fine Particle Implementation Rule ("2007 PM_{2.5} Implementation Rule") to assist states with the development of SIPs to meet the Act's attainment planning requirements for the 1997 PM_{2.5} standards (72 FR 20583, April 25, 2007, codified at 40 CFR part 51, subpart Z). This rule was premised on the EPA's prior interpretation of the Act as allowing for implementation of the PM_{2.5} NAAQS solely pursuant to the general nonattainment area provisions in subpart 1 of part D, title I of the CAA ("subpart 1") and not the more specific provisions for particulate matter nonattainment areas in subpart 4 of part D, title I of the Act ("subpart 4"). Among other things, the 2007 PM_{2.5} Implementation Rule included nationally-applicable presumptions regarding the need to evaluate and potentially control emissions of certain PM_{2.5} precursors.⁵

In March of 2012, the EPA issued a guidance document to aid states in preparing SIPs to meet the Act's attainment planning

⁵ Specifically, in 40 CFR 51.1002(c), the EPA provided, among other things, that a state was "not required to address VOC [and ammonia] as . . . PM_{2.5} attainment plan precursor[s] and to evaluate sources of VOC [and ammonia] emissions in the State for control measures," unless the State or the EPA provided an appropriate technical demonstration showing that emissions from sources of these pollutants "significantly contribute" to PM_{2.5} concentrations in the nonattainment area (40 CFR 51.1002(c)(3) and (4) and 72 FR 20586 at 20589-97 (April 25, 2007)).

requirements for the 2006 24-hour PM_{2.5} standard.⁶ The 2012 guidance was based, in large part, on the requirements in the 2007 PM_{2.5} Implementation Rule, which the EPA based solely upon the statutory requirements of subpart 1.

California had three years from the December 14, 2009 effective date of the South Coast's designation as nonattainment for the 2006 PM_{2.5} standard to submit a SIP for the South Coast that addressed the applicable requirements of the Act.⁷ On December 19, 2012, the District adopted the Final 2012 Air Quality Management Plan (AQMP), which addressed attainment of the 2006 PM_{2.5} NAAQS, among other CAA requirements. We refer herein to the portions of the 2012 AQMP that address attainment of the 2006 PM_{2.5} NAAQS as the "2012 PM_{2.5} Plan." On January 25, 2013, CARB adopted the 2012 PM_{2.5} Plan as an element of the California SIP and submitted it to the EPA on February 13, 2013.⁸

On January 4, 2013, several weeks after the District's adoption of the Plan, the U.S. Court of Appeals for the D.C. Circuit issued its decision in a challenge to the EPA's 2007 PM_{2.5} Implementation Rule (*NRDC v. EPA*, 706 F.3d 428 (D.C. Cir.

⁶ See Memorandum, dated March 2, 2012 (withdrawn June 6, 2013), from Stephen D. Page, Director, Office of Air Quality Planning and Standards, to EPA Regional Air Directors, Regions I-X re: "Implementation Guidance for the 2006 24-Hour Fine Particle (PM_{2.5}) National Ambient Air Quality Standards (NAAQS)" ("2012 Guidance") Available at: http://epa.gov/ttn/naqs/pm/pm25_guide.html.

⁷ See CAA section 172(b) and 40 CFR 51.1002(a).

⁸ See letter dated February 13, 2013, from James N. Goldstene, Executive Officer, CARB, to Jared Blumenfeld, Regional Administrator, EPA Region 9, , with attachments, and CARB Board Resolution 13-3.

2013)). In *NRDC*, the court held that the EPA erred in implementing the 1997 PM_{2.5} standards solely pursuant to the general implementation requirements of subpart 1, without also considering the requirements specific to particulate matter nonattainment areas in subpart 4.⁹ The court reasoned that the plain meaning of the CAA requires implementation of the 1997 PM_{2.5} standards under subpart 4 because PM_{2.5} particles fall within the statutory definition of PM₁₀ and are thus subject to the same statutory requirements as PM₁₀. The court remanded the 2007 PM_{2.5} Implementation Rule in its entirety, including the presumptions concerning VOC and ammonia in 40 CFR 51.1002, and instructed the EPA "to repromulgate these rules pursuant to Subpart 4 consistent with this opinion."

Consistent with the *NRDC* decision, on June 2, 2014 (79 FR 31566), the EPA published a final rule classifying all areas currently designated nonattainment for the 1997 and/or 2006 PM_{2.5} standards as "Moderate" under subpart 4 and establishing a deadline of December 31, 2014 for states to submit any attainment-related and nonattainment new source review (NNSR) SIP elements required for these areas pursuant to subpart 4. The

⁹ The *NRDC* decision also remanded the EPA's 2008 final rule to implement the nonattainment New Source Review (NNSR) permitting requirements for PM_{2.5} (73 FR 28231, May 16, 2008) which, like the 2007 PM_{2.5} Implementation Rule, was premised on the requirements of subpart 1. Today's proposal does not address requirements for NNSR programs.

EPA provided its rationale for these actions in both the proposed and final classification/deadline rule.¹⁰

On February 6, 2015, the District adopted the "Supplement to the 24-Hour PM_{2.5} State Implementation Plan for the South Coast Air Basin" ("2015 Supplement" or "Supplement") as a revision to the 2012 PM_{2.5} Plan. The District adopted the Supplement to address subpart 4 requirements for the 2006 PM_{2.5} standard to the extent that these requirements were not adequately addressed in the 2012 PM_{2.5} Plan. CARB submitted the Supplement to the EPA on March 4, 2015. The Supplement includes information on the implementation of reasonably available controls for ammonia sources in the South Coast and the District's demonstration that the 2012 PM_{2.5} Plan and 2015 Supplement satisfy the requirements of subpart 4. As a consequence of the *NRDC* decision, we are reviewing the 2012 PM_{2.5} Plan and 2015 Supplement for compliance with the applicable requirements of both subpart 1 and subpart 4.

The EPA provided its preliminary views on the CAA's requirements for particulate matter plans under part D, title I of the Act in "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (57 FR 13498, April 16, 1992) ("General Preamble") and

¹⁰ See 79 FR 69806, 69809 (November 21, 2013) and 79 FR 31566, 31568 (June 2, 2014).

"State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (59 FR 41998, August 16, 1994) ("Addendum"). The General Preamble at 13538 discusses the relationship of subpart 1 and subpart 4 SIP requirements, and notes that attainment plans for moderate nonattainment areas must meet the general provisions in subpart 1 to the extent that these provisions are not otherwise "subsumed by, or integrally related to, the more specific [subpart 4] requirements." Some subpart 1 provisions have no subpart 4 equivalent (e.g., the emission inventories (CAA section 172(c)(3)) and contingency measures (CAA section 172(c)(9)) and for these provisions, subpart 1 continues to govern. Other provisions of subpart 1 are subsumed or superseded by more specific requirements in subpart 4 (e.g., certain provisions concerning attainment dates).

Additionally, in a proposed rule published March 23, 2015 (80 FR 15340), the EPA provided further interpretive guidance on the statutory SIP requirements that apply to areas designated nonattainment for the PM_{2.5} standards (hereafter "Proposed PM_{2.5} Implementation Rule"). We discuss these preliminary interpretations of the Act as appropriate in our evaluation of

the 2012 PM_{2.5} Plan and 2015 Supplement in section IV of this proposed rule.

III. Clean Air Act Procedural Requirements for SIP Submittals

We are proposing action on two California SIP submittals. The first is the "2012 PM_{2.5} Plan," submitted on February 13, 2013, and the second is the 2015 Supplement, submitted on March 4, 2015.^{11,12}

CAA sections 110(a)(1) and (2) and 110(l) require each state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submittal of a SIP or SIP revision. To meet this requirement, every SIP submittal should include evidence that adequate public notice was given and an opportunity for a public hearing was provided consistent with the EPA's implementing regulations in 40 CFR 51.102.

Both the District and CARB satisfied applicable statutory and regulatory requirements for reasonable public notice and hearing prior to adoption and submittal of the 2012 PM_{2.5} Plan. The District conducted public workshops, provided public comment periods, and held a public hearing prior to the adoption of the 2012 PM_{2.5} Plan on December 7, 2012.¹³ CARB provided the required

¹¹ See footnote 8.

¹² See Letter dated March 4, 2015 from Richard W. Corey, Executive Officer, California Air Resources Board, to Jared Blumenfeld, Regional Administrator EPA Region 9, with attachments, and CARB Resolution 15-3.

¹³ See 2012 PM_{2.5} Plan, Public hearing notices, SCAQMD Governing Board Resolution 12-19, "A Resolution of the South Coast Air Quality Management District (AQMD or District) Governing Board Certifying the Final Program

public notice and opportunity for public comment prior to its January 25, 2013 public hearing on the 2012 PM_{2.5} Plan.¹⁴ The SIP submittal includes proof of publication of notices for these public hearings. We find, therefore, that the 2012 PM_{2.5} Plan meets the procedural requirements for public notice and hearing in CAA sections 110(a) and 110(l).

The District adopted the 2015 Supplement after reasonable public notice and hearing.¹⁵ CARB adopted the Supplement for submittal as a SIP revision at its February 19, 2015 Board meeting after reasonable public notice.¹⁶

CAA section 110(k)(1)(B) requires the EPA to determine whether a SIP submittal is complete within 60 days of receipt. This section also provides that any plan that the EPA has not affirmatively determined to be complete or incomplete will become complete by operation of law six months after the date of submittal. The EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V. A completeness review allows us to determine if the submittal includes all the necessary items and

Environmental Impact Report for the 2012 Air Quality Management Plan (AQMP), adopting the Draft final 2012 AQMP, to be referred to after Adoption as the Final 2012 AQMP, and to be submitted into the California State Implementation Plan," December 7, 2012.

¹⁴ See CARB Resolution 13-3, "South Coast Air Basin 2012 PM_{2.5} and Ozone State Implementation Plans," January 25, 2013.

¹⁵ See Notice of Public Hearing to Adopt Supplemental Document to the 2012 PM_{2.5} Plan for the 2006 PM_{2.5} Standard.

¹⁶ See CARB, Notice of Public Meeting to Consider a Minor Revision to the South Coast 2012 PM_{2.5} State Implementation Plan, and CARB Board Resolution 15-2, February 19, 2015.

information we need to evaluate and act on it for substantive compliance with applicable requirements.

The February 13, 2013 submittal of the 2012 PM_{2.5} Plan became complete by operation of law on August 13, 2014. The 2015 Supplement became complete by operation of law on September 4, 2015 (see our Technical Support Document (TSD) at section I.B).

IV. Review of the South Coast 2012 PM_{2.5} Plan and 2015 Supplement

We summarize our evaluation of the 2012 PM_{2.5} Plan and 2015 Supplement below. Our detailed evaluation can be found in the TSD for this proposal which is available online at www.regulations.gov in docket number EPA-R09-OAR-2015-0204, on EPA Region 9's website at <http://www.epa.gov/region9/air/actions/southcoast/#PM25>, or from the EPA contact listed at the beginning of this notice.

A. Emissions Inventory

1. Requirements for Emissions Inventories

CAA section 172(c)(3) requires that each SIP include a "comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in [the] area" By requiring an accounting of actual emissions from all sources of the relevant pollutants in the area, this section provides for the base year inventory to include all emissions that contribute to the formation of a

particular NAAQS pollutant. For the 2006 24-hour PM_{2.5} NAAQS, this includes direct PM_{2.5} as well as the main chemical precursors to the formation of secondary PM_{2.5}: NO_x, SO₂, VOC, and ammonia (NH₃). Primary PM_{2.5} includes condensable and filterable particulate matter.

A state should include in its SIP submittal documentation explaining how the emissions data were calculated. In estimating mobile source emissions, a state should use the latest emissions models and planning assumptions available at the time the SIP is developed. At the time the 2012 PM_{2.5} Plan and 2015 Supplement were developed, California was required to use EMFAC2011 to estimate tailpipe and brake and tire wear emissions of PM_{2.5}, NO_x, SO₂, and VOC from on-road mobile sources (78 FR 14533, March 6, 2013). States are required to use the EPA's AP-42 road dust method for calculating re-entrained road dust emissions from paved roads (76 FR 6328, February 4, 2011).

In addition to the base year inventory submitted to meet the requirements of CAA section 172(c)(3), the state must also submit future "baseline inventories" for the projected attainment year and each reasonable further progress (RFP) milestone year, and any other year of significance for meeting applicable CAA requirements. By "baseline inventories" (also referred to as "projected baseline inventories"), we mean projected emissions inventories for future years that account

for, among other things, the ongoing effects of economic growth and adopted emissions control requirements. The SIP submission should include documentation explaining how the emissions projections were calculated.

2. Emissions Inventories in the 2012 PM_{2.5} Plan

The annual average planning inventories for direct PM_{2.5} and all PM_{2.5} precursors (NO_x, SO_x, VOC, and ammonia) for the South Coast PM_{2.5} nonattainment area together with documentation for the inventories are found in Chapter 3 and Appendices III and V of the South Coast 2012 PM_{2.5} Plan and in Attachment A to the 2015 Supplement. Additional inventory documentation specific to the air quality modeling is in Appendix V. Annual average inventories are provided for the 2008 base year, and for future years 2014 and the PM_{2.5} attainment year of 2015. (Additional years such as 2017, 2019, 2023 and 2030 are also provided, but these inventories are largely for the purposes of ozone attainment.) Baseline inventories reflect all control measures adopted by the District prior to June 2012 and by CARB prior to August 2011. Growth factors used to project these baseline inventories are derived mainly from data obtained from the Southern California Association of Governments (SCAG), the metropolitan planning organization (MPO) for the Los Angeles area (2012 PM_{2.5} Plan, page 3-1).

Each inventory includes emissions from point, area, on-road, and non-road sources. Stationary sources include point and area sources. Point sources in the South Coast air basin that emit 4 tons per year or more of VOC, NOx, SOx or PM report annual emissions to the District. Point source emissions for the 2008 base year emission inventory were based on emissions reported from the SCAQMD's Annual Emissions Reporting Program.¹⁷ Area sources include smaller emissions sources distributed across the nonattainment area. CARB and the District estimate emissions for about 400 area source categories using activity information and emission factors. Activity data may come from national survey data or reports (e.g., from the DOE Energy Information Administration) or local sources such as the Southern California Gas Company, paint suppliers, and District databases. Emission factors can be based on a number of sources including source tests, compliance reports, and EPA's AP-42.¹⁸

Emissions inventories are constantly being revised and improved. Between the finalization of the South Coast 2007 AQMP and the development of the 2012 PM_{2.5} Plan, the District added new

¹⁷ See <http://www.aqmd.gov/home/regulations/compliance/annual-emission-reporting>.

¹⁸ AP-42 is EPA's *Compilation of Air Pollutant Emission Factors*, and has been published since 1972 as the primary source of EPA's emission factor information. It contains emission factors and process information for more than 200 air pollution source categories. A source category is a specific industry sector or group of similar emitting sources. The emission factors have been developed and compiled from source test data, material balance studies, and engineering estimates.

area source categories such as liquefied petroleum gas (LPG) transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants to the inventories in the 2012 PM_{2.5} Plan. We provide more detail on these updates and revisions in section II.A. of the TSD.

The on-road mobile inventories use EMFAC2011 for estimating motor vehicle emissions (2012 PM_{2.5} Plan, p. 3-1).¹⁹ Since EMFAC2011 was released in 2011, CARB has adopted additional regulations to control air pollution from mobile sources. For the 2012 PM_{2.5} Plan, the State adjusted EMFAC2011 emissions estimates for the advanced clean cars program, reformulated gasoline rules, and Smog Check program to reflect these new measures (2012 PM_{2.5} Plan, p. 3-5). Re-entrained paved road dust emissions were calculated using EPA's AP-42 road dust methodology (2012 PM_{2.5} Plan, Appendix III, p. III-1-13 and 2015 Supplement, Attachment B). SCAG, the MPO for the Los Angeles area, provided transportation activity data from the adopted 2012 Regional Transportation Plan (RTP).

Off-road emissions such as construction, mining, gardening and agricultural equipment emissions were calculated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. The off-road equipment population was adjusted due to the recession, and

¹⁹ EMFAC2011 was approved for use in SIPs and conformity on March 6, 2013 (see 78 FR 14533).

equipment hours of use were adjusted based on reported activity. Equipment load factors were updated using a 2009 academic study and information provided by engine manufacturers. External adjustments were made to CARB's off-road emissions estimates for locomotives, large-spark ignition engines, and nonagricultural internal combustion engines. CARB also calculated emissions from ocean-going vessels, commercial harbor craft, locomotives, and cargo handling equipment. Locomotive emissions reflect EPA regulations effective in 2008 and adjustments due to economic activity. The District estimated aircraft emissions. Future emissions forecasts are based largely on growth forecasts (demographic and economic information) from SCAG.

A summary of the Plan's 2008 base year inventory and the 2014 projected inventory is provided in Table 1 below. For a more detailed discussion of the inventories, see the 2012 PM_{2.5} Plan, Appendix III.

Table 1. Summary of Emissions for the South Coast PM_{2.5} Nonattainment Area (annual average in tons per day)		
	2008	2014
Direct PM _{2.5}		
Stationary and Area Sources	48	50
On-Road Mobile Sources	19	12
Off-Road Mobile Sources	13	8
Total	80	70
Nitrogen Oxides		

Table 1. Summary of Emissions for the South Coast PM_{2.5} Nonattainment Area (annual average in tons per day)		
	2008	2014
Stationary and Area Sources	92	77
On-Road Mobile Sources	462	272
Off-Road Mobile Sources	204	157
Total	758	506
Sulfur Dioxide		
Stationary and Area Sources	14	12
On-Road Mobile Sources	2	2
Off-Road Mobile Sources	38	4
Total	54	18
Volatile Organic Compounds		
Stationary and Area Sources	257	234
On-Road Mobile Sources	209	117
Off-Road Mobile Sources	127	100
Total	593	451
Ammonia		
Stationary and Area Sources	88.7	85.6
On-Road Mobile Sources	19.9	16.5
Off-Road Mobile Sources	0.1	0.1
Total	108.9	102.1

Source: South Coast 2012 PM_{2.5} Plan, Chapter 3, Tables 3-2A, 3-4A, Appendix III, Table III-1-5, and 2008 ammonia inventory from Appendix V, Table V-4-2.

3. Evaluation and Proposed Action

The emissions inventories in the 2012 PM_{2.5} Plan were made available to the public for comment and were subject to public hearing at both the District and State levels. See SCAQMD Governing Board Resolution 12-19, p. 3 and CARB Resolution 13-3, p. 4.

The inventories in the South Coast 2012 PM_{2.5} Plan and 2015 Supplement are based on the most current and accurate information available to the State and District at the time the 2012 PM_{2.5} Plan and its inventories were being developed, including the latest EPA-approved version of California's mobile source emissions model, EMFAC2011, and the EPA's most recent AP-42 methodology for paved road dust. The inventories comprehensively address all source categories in the South Coast and were developed consistent with the EPA's inventory guidance. For these reasons, we are proposing to approve the 2008 base year emissions inventory in the 2012 PM_{2.5} Plan as meeting the requirements of CAA section 172(c)(3). We also propose to find that the baseline inventories in the Plan provide an adequate basis for the reasonably available control measure (RACM), RFP, and impracticability demonstrations in the 2012 PM_{2.5} Plan.

B. Air Quality Modeling

1. Requirements for Air Quality Modeling

CAA section 189(a)(1)(B) requires each State in which a Moderate area is located to submit a plan that includes a demonstration either (i) that the plan will provide for attainment by the applicable attainment date, or (ii) that attainment by that date is impracticable. The 2012 PM_{2.5} Plan, 2015 Supplement, and July 28, 2015 letter include a demonstration that attainment by the Moderate attainment date is impracticable.

Air quality modeling is used to establish attainment emissions targets, the combination of emissions of PM_{2.5} and PM_{2.5} precursors that the area can accommodate and still attain the standard, and to assess whether the proposed control strategy will result in attainment of the standard. Air quality modeling is performed for a base year and compared to air quality monitoring data collected during that year in order to determine model performance. Once the performance is determined to be acceptable, future year changes to the emissions inventory are simulated with the model to determine the relationship between emissions reductions and changes in ambient air quality. To project future design values, the model response to emission reductions, in the form of Relative Response Factors (RRFs), is applied to monitored design values from the base year.

For demonstrating attainment, the EPA's recommendations for model input preparation, model performance evaluation, use of the model output for the attainment demonstration, and modeling documentation are described in *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze*, EPA-454/B-07-002, April 2007 ("Modeling Guidance"), as amended by "Update to the 24 Hour PM_{2.5} NAAQS Modeled Attainment Test," Memorandum dated June 28, 2011, from Tyler Fox, Air Quality Modeling Group, Office of Air Quality Planning and Standards, EPA to Regional Air Program Managers, EPA ("Modeling Guidance Update").²⁰ As discussed below, the Modeling Guidance recommends supplemental air quality analyses. These may be used as part of a Weight of Evidence analysis (WOEA), which assesses attainment projections by considering evidence other than the main air quality modeling attainment test.

The EPA has not issued modeling guidance specific to impracticability demonstrations but believes that a state seeking to make such a demonstration generally should provide

²⁰ The EPA modeling guidance is available on EPA's SCRAM web site, web page: http://www.epa.gov/scram001/guidance_sip.htm; direct links: <http://www.epa.gov/scram001/guidance/guide/final-03-pm-rh-guidance.pdf> and http://www.epa.gov/ttn/scram/guidance/guide/Update_to_the_24-hour_PM25_Modeled_Attainment_Test.pdf.

air quality modeling similar to that required for an attainment demonstration. The main difference is that for an impracticability demonstration, the implementation of the SIP control strategy (including RACM) does not result in attainment of the standard by the Moderate area attainment date.

For an attainment demonstration, a thorough review of all modeling inputs and assumptions (including consistency with EPA guidance) is especially important, since the modeling must ultimately support a conclusion that the plan (including its control strategy) will provide for timely attainment of the applicable NAAQS. In contrast, for an impracticability demonstration, the end point is a reclassification to Serious, which triggers the requirement for a new Serious Area attainment plan with a new air quality modeling analysis, and a new control strategy. See CAA section 189(b)(1). Thus, the Serious Area planning process would provide an opportunity to refine the modeling analysis and/or correct any technical shortcomings in the impracticability demonstration. Therefore, the burden of proof will generally be lower for an impracticability demonstration compared to an attainment demonstration.

2. Air Quality Modeling in the 2012 PM_{2.5} Plan

The 2012 PM_{2.5} Plan and 2015 Supplement contain a demonstration of attainment by the Moderate area attainment date, which is December 31, 2015. SCAQMD developed a modeling protocol for the 2012 PM_{2.5} Plan, which EPA reviewed during the District's development of the Plan. The Plan discusses air quality modeling in Chapter 5, "Future Air Quality," and in detail in Appendix V, "Modeling and Attainment Demonstrations." The 2012 PM_{2.5} Plan's attainment demonstration was based on photochemical modeling with the Community Multiscale Air Quality (CMAQ) model, using routinely available meteorological and air quality data as input. The 2012 PM_{2.5} Plan and the 2015 Supplement contain an unmonitored area analysis as well as a weight of evidence (WOE) demonstration. The WOE demonstration in the 2015 Supplement accounts to some extent for the effect of the drought on ambient PM_{2.5} levels in the South Coast.

In a letter dated July 28, 2015, the SCAQMD requested that EPA reclassify the South Coast Air Basin as Serious nonattainment for the 2006 24-hour PM_{2.5} NAAQS based on monitoring data indicating that attainment is not practicable by the Moderate area attainment date, which is December 31, 2015.²¹ The SCAQMD also requested that the EPA treat the 2012 PM_{2.5} Plan and 2015 Supplement, together with the air quality data provided

²¹ See letter dated July 28, 2015, from Barry R. Wallerstein, Executive Officer, SCAQMD, to Elizabeth Adams, Acting Director, Air Division, US Environmental Protection Agency, Region 9.

in the July 28, 2015 letter, as a demonstration that the area cannot practicably attain by the Moderate area attainment date.

Based on the request from the SCAQMD, the modeled attainment demonstration provided in the Plan, the 2015 Supplement, and the monitoring data provided in the July 28, 2015 letter, we are evaluating the State's submittal as a demonstration that attainment by the Moderate area attainment date is impracticable. We provide a more detailed evaluation of the air quality modeling in the Plan in section II.B. of our TSD.

3. Conclusion on Air Quality Modeling

Given the Plan's extensive discussion of modeling procedures, tests, and performance analyses consistent with EPA's guidance in the Modeling Protocol, and the good model performance, EPA finds that the modeling is adequate for purposes of supporting the RACM demonstration, the RFP demonstration, and the demonstration of impracticability in the 2012 PM_{2.5} Plan and Supplement.

C. PM_{2.5} Precursors

1. Requirements for the Control of PM_{2.5} Precursors

The composition of PM_{2.5} is complex and highly variable due in part to the large contribution of secondary PM_{2.5} to

total fine particle mass in most locations, and to the complexity of secondary particle formation processes. A large number of possible chemical reactions, often non-linear in nature, can convert gaseous SO₂, NO_x, VOC and ammonia to PM_{2.5}, making them precursors to PM_{2.5}.²² Formation of secondary PM_{2.5} may also depend on atmospheric conditions, including solar radiation, temperature, and relative humidity, and the interactions of precursors with preexisting particles and with cloud or fog droplets.²³

The 2007 PM_{2.5} Implementation Rule contained rebuttable presumptions concerning the four PM_{2.5} precursors applicable to attainment plans and control measures related to those plans. See 40 CFR 51.1002(c). Although the rule included presumptions that states should address SO₂ and NO_x emissions in their attainment plans, it also included presumptions that regulation of VOCs and ammonia was not necessary. Specifically, in 40 CFR 51.1002(c), the EPA provided, among other things, that a state was "not required to address VOC [and ammonia] as ... PM_{2.5} attainment plan precursor[s] and to evaluate sources of VOC [and ammonia] emissions in the state for control measures," unless the state or

²² EPA, Air Quality Criteria for Particulate Matter (EPA/600/P-99/002aF, October 2004), Chapter 3.

²³ EPA, Regulatory Impact Analysis for the Final Revisions to the National Ambient Air Quality Standards for Particulate Matter (EPA -452/R-12-005, December 2012), p. 2-1.

the EPA provided an appropriate technical demonstration showing that emissions from sources of these pollutants "significantly contribute" to PM_{2.5} concentrations in the nonattainment area. 40 CFR 51.1002(c) (3), (4); see also 2007 PM_{2.5} Implementation Rule, 72 FR 20586 at 20589-97 (April 25, 2007).

In *NRDC*, however, the D.C. Circuit remanded the EPA's 2007 PM_{2.5} Implementation Rule in its entirety, including the presumptions concerning VOC and ammonia in 40 CFR 51.1002. See *NRDC v. EPA*, 706 F.3d 428 (D.C. Cir. 2013). Although the court expressly declined to decide the specific challenge to these presumptions (see 706 F.3d at 437, n. 10 (D.C. Cir. 2013)), the court cited CAA section 189(e)²⁴ to support its observation that "[a]mmonia is a precursor to fine particulate matter, making it a precursor to both PM_{2.5} and PM₁₀" and that "[f]or a PM₁₀ nonattainment area governed by subpart 4, a precursor is presumptively regulated." 706 F.3d at 436, n. 7 (*citing* CAA section 189(e)). Consistent with the *NRDC* decision, EPA now interprets the Act to require that under subpart 4, a state must evaluate all PM_{2.5} precursors for regulation unless the

²⁴ Section 189(e) of the CAA states that "[t]he control requirements applicable under plans in effect under this part for major stationary sources of PM₁₀ shall also apply to major stationary sources of PM₁₀ precursors, except where the Administrator determines that such sources do not contribute significantly to PM₁₀ levels which exceed the standard in the area."

state provides a demonstration adequate to rebut the presumption for a particular precursor in a particular nonattainment area.

The provisions of subpart 4 do not define the term "precursor" for purposes of PM_{2.5}, nor do they explicitly require the control of any specifically identified particulate matter (PM) precursor. The statutory definition of "air pollutant," however, provides that the term "includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used." CAA section 302(g). The EPA has identified SO₂, NO_x, VOC, and ammonia as precursors to the formation of PM_{2.5}. Accordingly, the attainment plan requirements of subpart 4 presumptively apply to emissions of all four precursor pollutants and direct PM_{2.5} from all types of stationary, area, and mobile sources, except as otherwise provided in the Act (e.g. CAA section 189(e)).

Section 189(e) of the Act requires that the control requirements for major stationary sources of direct PM₁₀ also apply to major stationary sources of PM₁₀ precursors, except where the Administrator determines that such sources do not contribute significantly to PM₁₀ levels that exceed the standard

in the area. Section 189(e) contains the only express exception to the control requirements under subpart 4 (e.g., requirements for RACM and RACT, BACM and BACT, most stringent measures, and NSR) for sources of direct PM_{2.5} and PM_{2.5} precursor emissions. Although section 189(e) explicitly addresses only major stationary sources, the EPA interprets the Act as authorizing it to also determine, under appropriate circumstances, that regulation of certain PM_{2.5} precursors from other source categories in a given nonattainment area is not necessary. For example, under the EPA's longstanding interpretation of the control requirements that apply to stationary, area, and mobile sources of PM₁₀ precursors area-wide under CAA section 172(c)(1) and subpart 4 (see General Preamble, 57 FR 13498 at 13539-42), a state may demonstrate in a SIP submittal that control of a certain precursor pollutant is not necessary in light of its insignificant contribution to ambient PM_{2.5} levels in the nonattainment area.²⁵

We are evaluating the South Coast PM_{2.5} Plan in accordance with the presumption embodied within subpart 4 that all PM_{2.5} precursors must be addressed in the state's evaluation of potential control measures, unless the state adequately

²⁵ Courts have upheld this approach to the requirements of subpart 4 for PM₁₀. See, e.g., *Assoc. of Irrigated Residents v. EPA, et al.*, 423 F.3d 989 (9th Cir. 2005).

demonstrates that emissions of a particular precursor do not contribute significantly to ambient PM_{2.5} levels that exceed the PM_{2.5} NAAQs in the nonattainment area.

2. Evaluation of Precursors in 2012 PM_{2.5} Plan and 2015 Supplement

The 2012 PM_{2.5} Plan and 2015 Supplement discuss the five primary pollutants that contribute to the mass of the ambient aerosol (*i.e.*, ammonia, NO_x, SO_x, VOC, and directly emitted PM_{2.5}), and states that various combinations of reductions in these pollutants could all provide a path to clean air.²⁶ The Plan assesses and presents the relative value of each ton of precursor emission reductions, considering the resulting ambient microgram per cubic meter improvements in PM_{2.5} air quality.²⁷ As presented in the weight of evidence discussion, trends of PM_{2.5} and NO_x emissions suggest a direct response between lower emissions of PM_{2.5} and NO_x and improved air quality. The CMAQ simulations in the Plan provide a set of response factors for direct PM_{2.5}, NO_x, SO_x and VOCs, based on improvements to ambient 24-hour PM_{2.5} levels resulting from reductions of each pollutant. The contribution of ammonia emissions is embedded as a component of the SO_x and NO_x factors since ammonium nitrate and ammonium

²⁶ 2012 PM_{2.5} Plan, Appendix V, p. V-5-51 and Appendix V, Attachment 8, Relative Contributions of Precursor Emissions Reductions to Simulated Controlled Future-Year 24-hour PM_{2.5} Concentrations.

²⁷ 2012 PM_{2.5} Plan, Appendix V, Attachment 8, Relative Contributions of Precursor Emissions Reductions to Simulated Controlled Future-Year 24-hour PM_{2.5} Concentrations.

sulfate are the resultant particulate species formed in the atmosphere.

The 2012 PM_{2.5} Plan and 2015 Supplement describe how reductions in NO_x, SO₂, VOC and ammonia emissions contribute to attainment of the PM_{2.5} standard in the South Coast area and contain the District's evaluation of available control measures for all four of these PM_{2.5} precursor pollutants, in addition to direct PM_{2.5}, consistent with the regulatory presumptions under subpart 4. The 2015 Supplement also contains a discussion of the nonattainment New Source Review (NNSR) control requirements applicable to major stationary sources under CAA section 189(e) (see 2015 Supplement at Attachment E), which we are not addressing in this proposal.²⁸ We discuss the state's evaluation of potential control measures for direct PM_{2.5}, NO_x, SO₂, VOC and ammonia in section IV.D of this rulemaking, "Reasonably Available Control Measures/Reasonably Available Control Technology."

D. Reasonably Available Control Measures/Reasonably Available Control Technology

²⁸ In a separate rulemaking to approve revisions to SCAQMD's nonattainment New Source Review (NNSR) program, the EPA determined that the control requirements applicable under the SCAQMD SIP to major stationary sources of direct PM_{2.5} also apply to major stationary sources of NO_x, SO_x, and VOC, and that major stationary sources of ammonia do not contribute significantly to PM_{2.5} levels which exceed the PM_{2.5} standards in the area. See 80 FR 24821, May 1, 2015. This rulemaking addressed the control requirements of CAA section 189(e) only for NNSR purposes and not for attainment planning purposes under subpart 1 and 4 of part D, title I of the Act.

1. Requirements for RACM/RACT

The general subpart 1 attainment plan requirement for RACM and RACT is described in CAA section 172(c)(1), which requires that attainment plan submissions "provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment" of the NAAQS. The attainment planning requirements specific to PM_{2.5} under subpart 4 likewise impose upon states an obligation to develop attainment plans that require RACM on sources of direct PM_{2.5} and those PM_{2.5} precursors determined to be subject to the RACM/RACT requirement. CAA section 189(a)(1)(C) requires that Moderate area PM_{2.5} SIPs contain provisions to assure that RACM are implemented by no later than 4 years after designation of the area. The EPA reads CAA sections 172(c)(1) and 189(a)(1)(C) together to require that attainment plans for Moderate nonattainment areas must provide for the implementation of RACM and RACT for existing sources of PM_{2.5} and PM_{2.5} precursors in the nonattainment area as expeditiously as practicable but no later

than 4 years after designation.²⁹ As part of the RACM/RACT analysis, all available controls should be evaluated, and reasonable controls should be adopted.

The terms RACM and RACT are not specifically defined in the Act, nor do the provisions of subpart 4 specify how states are to meet the RACM and RACT requirements. In longstanding guidance, however, the EPA has interpreted the RACM requirement to include any potential control measure for a point, area, on-road and non-road emission source that is technologically and economically feasible (General Preamble at 13540). The EPA has historically defined RACT as the lowest emission limitation that a particular stationary source is capable of meeting by the application of control technology (e.g., devices, systems, process modifications, or other apparatus or techniques that reduce air pollution) that is reasonably available considering technological and economic feasibility. See General Preamble at 13541 and 57 FR 18070, 18073-74 (April 28, 1992).

An evaluation of technological feasibility should include consideration of factors such as a source's process and operating conditions, raw materials, physical plant layout, and non-air quality and energy impacts (e.g., increased water

²⁹ This interpretation is consistent with guidance provided in the General Preamble at 13540.

pollution, waste disposal, and energy requirements) (57 FR 18070, 18073).

An evaluation of economic feasibility should include consideration of factors such as cost per ton of pollution reduced (cost-effectiveness), capital costs, and annualized cost (57 FR 18070, 18074). Absent other indications, the EPA presumes that it is reasonable for similar sources to bear similar costs of emissions reductions. Economic feasibility of RACM and RACT is thus largely informed by evidence that other sources in a source category have in fact applied the control technology, process change, or measure in question in similar circumstances. *Id.*

2. RACM/RACT Analysis in the 2012 PM_{2.5} Plan and 2015 Supplement

The 2012 PM_{2.5} Plan and 2015 Supplement's RACM/RACT evaluation for direct PM_{2.5}, NO_x, VOC, ammonia, and SO_x sources is presented in Appendix VI and in Attachment D to the 2015 Supplement. SCAG's RACM analysis for mobile sources is detailed in the 2012 PM_{2.5} Plan, Appendix IV-C ("Regional Transportation Strategies and Control Measures"). CARB's RACM evaluation for mobile sources is included in Appendix VI of the 2012 PM_{2.5} Plan.

The evaluation of potential controls is presented by pollutant and then by rule type/source category. For stationary and area source categories, the comparison to recently-issued

EPA CTGs is broken down by the current District rule or rules that apply to that source category. See 2012 PM_{2.5} Plan, Appendix VI, and 2015 Supplement, Attachment D.

For the 2012 PM_{2.5} Plan, the District, CARB and SCAG each undertook a process to identify and evaluate potential measures that could contribute to expeditious attainment of the PM_{2.5} standards in the South Coast nonattainment area. We describe these processes below.

The District conducted a multi-step process to identify candidate RACM measures for the South Coast 2012 PM_{2.5} Plan that are technologically and economically feasible. The first step was to conduct a 2012 Air Quality Technology Symposium in September of 2011. Technical experts from a wide variety of areas and the public were invited to provide new and innovative concepts to assist the South Coast area with attaining the PM and ozone NAAQS. The District also conducted ongoing outreach to engage stakeholders in the process. The following concepts were proposed as a result of these efforts:

- promote zero or near-zero emission technologies and provide incentives for mobile source and goods movement equipment upgrades,

- further reduce VOC emissions from coatings, solvents, and various consumer products focusing on reformulations or alternatives to VOC-based solvents,
- conduct a technology review for NOx RECLAIM, and further reduce NOx emissions through the use of low NOx burners, fuel cells, biogas, and distributed power generation,
- address energy-climate change and co-benefits, the need for electricity storage, or new fossil-fueled peaking plants, to compensate for fluctuation in renewable energy supply, and use outreach to promote energy efficiency, influence consumer behavior, expand carpools, increase gas taxes, and promote multiagency collaboration.

The second step in the District's RACM process was to look at the EPA's list of suggested control measures for PM_{2.5} nonattainment areas described in the 2007 PM_{2.5} Implementation Rule. The District summarized the results of this analysis in Table VI-3 in Appendix VI of the 2012 PM_{2.5} Plan. This analysis shows that the District either has a pre-existing rule or has developed a control measure for the 2012 PM_{2.5} Plan to address each of EPA's suggested types of measures.

The third step in the District's RACM process involved analyzing the District's rules for compliance with the RACT standard. The results of this analysis are summarized in Table

VI-4, Appendix VI (page VI-10) of the 2012 PM_{2.5} Plan. The District further supplemented these analyses in the 2015 Supplement, Attachment D, Tables D-4 to D-8 to address RACM and RACT requirements for direct PM_{2.5} and all PM_{2.5} precursors, and to provide reasoned justifications for control measures that were not adopted. A few examples of RACT-level rules in the South Coast include Rules 1146 and 1146.1, which control NO_x from industrial and institutional boilers, Rule 1113.3, greenwaste composting, which in addition to providing a RACT level of control, also controls fugitives, Rule 1171, Solvent Cleaning, and Rule 1130, Graphic Arts.³⁰

As part of these evaluations, the District compared its SIP rules with current rules, regulations and control measures implemented in other nonattainment areas. Specifically, the District re-evaluated all of its source category-specific rules and compared the requirements in these rules to more than 100 rules from four other air districts in California (San Joaquin

³⁰ The technical support documents for EPA's rulemaking actions on these rules are available at:

[http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/5F5287B726E9E6F488257D790004839A/\\$file/1146+and+1146+1+June+2014.pdf?OpenElement](http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/5F5287B726E9E6F488257D790004839A/$file/1146+and+1146+1+June+2014.pdf?OpenElement),
<http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/5AD85F69581DEB9388257AC50057D806?OpenDocument>,
<http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/F65EA6DB0E3F7F06882579210082BE8C?OpenDocument>, and
[http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/865FFD6DBAC8018F88257E82007BA257/\\$file/1130+Jun+2015.pdf?OpenElement](http://yosemite.epa.gov/r9/r9sips.nsf/AgencyProvision/865FFD6DBAC8018F88257E82007BA257/$file/1130+Jun+2015.pdf?OpenElement).

Valley, Sacramento Metropolitan, Ventura, and San Francisco Bay Area), the Dallas-Fort Worth and Houston-Galveston areas in Texas, New York, and New Jersey. A summary of this analysis is presented in the 2012 PM_{2.5} Plan, Appendix VI, Table VI-5 and in the 2015 Supplement, Attachment D. Table VI-5 identifies those rules from other areas that, based on the District's review, may be more stringent in some respects than South Coast rules. With respect to South Coast Rules 1115, 1130, and 1168, the Plan states the District's intention to provide further analyses at a later time. See 2012 PM_{2.5} Plan, Appendix VI, p. VI-9. Attachment D to the 2015 Supplement includes an updated RACM/RACT analysis with additional information on RACM for ammonia sources. The 2015 Supplement also states that the District will further evaluate Rule 1115 and Rule 1168, and notes that Rule 1130 was recently amended to address the applicable CTG. See 2015 Supplement, Attachment D, Table D-1 on p. D-5.

According to the District, several of the requirements in South Coast Rule 1115, Motor Vehicle Assembly Line Coating Operations, are not as stringent as the recommendations in the 2008 EPA CTG for a few coating processes emitting > 15 lbs/day. The two facilities subject to Rule 1115, however, have very small emissions, a total of about 0.02 tpd of VOC.³¹ See 2015

³¹ We note that 0.02 tpd is about 0.0044 percent of the total VOC inventory of 451 tpd for 2014. See section II.A of the TSD. See email correspondence from

Supplement, Attachment D, page D-29. In December 2009, we approved Rule 1168, Adhesive and Sealant Applications, as satisfying VOC RACT requirements under CAA section 182(b)(2) (see 74 FR 67821, December 21, 2009). In 2014, the District amended South Coast Rule 1130, Graphic Arts, to reduce fountain solution VOC content to 16-85 g/L with optional control device efficiency of 90-95%, consistent with the EPA's current CTG recommendations. On July 14, 2015, the EPA approved the revised South Coast Rule 1130 as satisfying VOC RACT requirements under CAA section 182(b)(2). (See 80 FR 40915.)

The RACM analyses and demonstrations conducted by CARB and SCAG for transportation and mobile source control measures are included in Appendix IV-C and its Attachment as well as the Attachment to Appendix VI of the 2012 PM_{2.5} Plan. CARB has unique authority under the CAA to adopt standards for most categories of on- and off-road engines and vehicles, subject in most instances to a waiver or authorization by EPA under CAA section 209. The State of California has been a leader in the development of some of the most stringent control measures nationwide for on-road and off-road mobile sources and the fuels that power them. As part of its 2007 State Strategy as revised in 2009 and 2011 to support attainment plans in California for

Joseph Cassmassi, SCAQMD, to Stanley Tong, US EPA Region 9, dated November 25, 2014 in the docket for today's action.

PM_{2.5} and 8-hour ozone, CARB undertook an extensive public consultation process to identify potential SIP measures. New measures adopted by CARB focused on cleaning up the in-use fleet, and increasing the stringency of emissions standards for a number of engine categories, fuels, and consumer products. CARB continues to expand its mobile source program to further reduce emission of direct PM_{2.5} and PM_{2.5} precursors. For example, in January 2012, CARB adopted the Advanced Clean Car program.³²

SCAG focused its analysis on transportation control measures (TCMs) in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and the analysis and results are described in Appendix IV-C of the 2012 PM_{2.5} Plan, "Regional Transportation Strategy and Control Measures." This evaluation considered transportation-related measures identified in section 108(f) of the CAA and measures adopted in other nonattainment areas of the country. SCAG provided a justification for measures that were determined to be infeasible for implementation in the South Coast nonattainment area. See 2012 PM_{2.5} Plan, Appendix IV-C.

The inventory for ammonia, provided in Appendix V of the 2012 PM_{2.5} Plan, indicates that the largest sources of ammonia include fuel combustion, waste disposal, miscellaneous sources, industrial sources, livestock, composting, domestic pets, and

³² See 78 FR 2112 (January 9, 2013).

on-road mobile emissions. See Table 2 below (referencing 2012 PM_{2.5} Plan at Appendix V, page V-4-2). The 2012 PM_{2.5} Plan and 2015 Supplement identify five measures that control ammonia emissions sources in the South Coast. The five rules are Rule 223, Emissions Reduction Permits from Large Confined Animal Feeding Operations (adopted June 2, 2006); Rule 1105.1, Reductions of PM-10 and Ammonia Emissions from Fluid Catalytic Cracking Units (adopted November 7, 2003); Rule 1127, Emissions Reductions from Livestock Waste (adopted August 6, 2004); Rule 1133.2, Emission Reductions from Co-Composting Operations (adopted January 10, 2003); and Rule 1133.3, Emission Reductions from Greenwaste Composting Operations (adopted July 8, 2011).

Table 2. South Coast Ammonia Emissions Inventory for 2008 (tpd)

Source Category	Ammonia Emissions
Livestock	18.6
Soil	1.8
Domestic	25.1
Landfill	3.6
Composting	17.8
Fertilizer	1.5
Sewage Treatment	0.2
Wood Combustion	0.1
Industrial	20.2
On-Road Mobile	19.9

Off-road Mobile	0.1
TOTAL	108.9

Source: 2012 PM_{2.5} Plan, Appendix V, Table V-4-2.

- Rule 223, Emissions Reduction Permits from Large Confined Animal Feeding Operations (LCAF), is a work practice rule to control VOC and ammonia emissions from LCAFs. It requires operators and/or owners to implement management practices (e.g., feed according to National Research Council of the National Academy of Sciences guidelines, clean manure from corrals at least four times per year, land incorporate manure within 72-hours of removal, and allow liquid manure to stand in field no more than 24 hours after irrigation) for different components of the CAF operation, such as feeding, milking parlors, housing/bedding, manure management and land application.

The EPA approved Rule 223 into the SIP on July 13, 2015 (see 80 FR 39966).

- Rule 1105.1, Reductions of PM₁₀ and Ammonia Emissions from Fluid Catalytic Cracking Units (FCCU), is designed to limit PM₁₀ and ammonia emissions from fluid catalytic cracking units at oil refineries. The rule sets emission limits for PM₁₀ and ammonia slip that result from the combination of FCCU emissions and ammonia injection used with electrostatic precipitators (ESP) to control FCCU emissions. Once in the

atmosphere, ammonia emissions react with other compounds to produce secondary PM. The rule requires oil refineries to implement control technologies to meet the emissions limits including but not limited to dry and wet ESPs, sulfur oxide reducing agents, selective catalytic reduction, selective non-catalytic reduction, and wet gas scrubbers. The EPA approved this rule into the SIP on January 4, 2006 (see 71 FR 241).

- Rule 1127, Emissions Reductions from Livestock Waste, requires dairies (and other types of dairy-cattle operations) to implement specific best management practices for manure management and disposal, and sets requirements for approving a facility as a manure processing operation. Specific requirements for ammonia include cleaning manure from corrals at least four times a year, disposing of manure only at approved manure processing operations, and applying it on agricultural land approved for that purpose. The EPA approved this rule into the SIP on May 23, 2013 (see 78 FR 30768).

- Rule 1133.2, Emission Reductions from Co-Composting Operations, requires all new or existing co-composting operations to compost in an enclosure that meets certain technical requirements (e.g., inward face velocity of air through each opening shall be at least 100 feet per minute

unless the opening contains closure seals), cure using an aeration system operating under negative pressure for no less than 90 percent of blower operating cycle, and vent the exhaust to an emission control system with a control efficiency for both VOC and ammonia of at least 80 percent, by weight, or submit a compliance plan for new operations that demonstrates an overall emission reduction for both VOC and ammonia of 80 percent, by weight, based on emission factors specified in the rule. For existing operations, the required emission reduction is 70 percent, by weight, for both ammonia and VOC. Rule 1133.2 also specifies required compliance plan elements. The EPA approved this rule into the SIP on July 21, 2004 (see 69 FR 43518).

- Rule 1133.3, Emission Reductions from Greenwaste Composting Operations, requires all new or existing greenwaste (includes foodwaste) composting facilities to cover, water and turn active phase compost piles according to specific requirements (e.g., cover for seven days, turn only when top of pile is sufficiently wet, based on test method) to minimize VOC and ammonia emissions. If total foodwaste throughput exceeds 5,000 tons per year, any active pile with more than 10 percent foodwaste must be controlled by a device with an overall system control efficiency of 80 percent, by weight,

each for VOC and ammonia emissions. The EPA approved this rule into the SIP on November 29, 2012 (see 77 FR 71129).

In addition, for livestock waste, the 2012 PM_{2.5} Plan and 2015 Supplement indicate the District will evaluate control measure BCM-04, Further Ammonia Reductions from Livestock Waste, as a potential ammonia control measure. Phase I of this control measure, scheduled for the 2015-2016 timeframe, involves a technology assessment. The technology assessment will evaluate the technical and economic feasibility of applying sodium bisulfate (SBS) at local dairies in the South Coast. SBS application has been shown to be an effective method for reducing ammonia from fresh manure. (See 2012 PM_{2.5} Plan, Appendix IV, page IV-A-32). The 2015 Supplement states that rule development will follow if controls are determined to be technically feasible and cost-effective. See 2015 Supplement, page F-1 and Table F-1.

We are proposing to reclassify the South Coast from Moderate to Serious nonattainment for the 2006 PM_{2.5} standard. A final reclassification to Serious will trigger the requirement in CAA section 189(b)(1)(B) for the submittal of a SIP providing for the implementation of Best Available Control Measures

(BACM),³³ among other things, within 18 months. As part of the District's development of a BACM control strategy for direct PM_{2.5} and those precursors subject to evaluation for potential controls in the South Coast (NO_x, SO₂, VOC, and ammonia), we encourage the District to consider additional measures previously identified by the EPA and the public in comments on the 2012 PM_{2.5} Plan, 2015 Supplement, and other individual rules and plans, as well as other potential innovative measures for reducing emissions. As part of this process, we suggest that the District consult with other state/local agencies and environmental and industry stakeholders.

Condensable Fraction of Direct PM_{2.5} Emissions

EPA's 2007 PM_{2.5} implementation rule states that "[a]fter January 1, 2011, for purposes of establishing emissions limits under 51.1009 and 51.1010, States must establish such limits taking into consideration the condensable fraction of direct PM_{2.5} emissions." 40 CFR 51.1002(c). The South Coast 2012 PM_{2.5} Plan and 2015 Supplement rely on several SIP-approved rules regulating direct PM emissions as part of the PM_{2.5} control

³³ The EPA defines BACM as, among other things, the maximum degree of emissions reduction achievable for a source or source category, which is determined on a case-by-case basis considering energy, environmental, and economic impacts. See Addendum at 42010, 42014. BACM must be implemented for all categories of sources in a serious PM_{2.5} nonattainment area unless the State adequately demonstrates that a particular source category does not contribute significantly to nonattainment of the PM_{2.5} standard. See *id.* At 42011, 42012.

strategy (e.g., Wood Burning Fireplaces (Rule 445, adopted March 7, 2008, most recently revised May 3, 2013), Wood Stoves and Under-Fired Charbroilers (Rule 1138, adopted November 14, 1997), and Particulate Matter (PM) Control Devices (Rule 1155, adopted December 4, 2009)). See 2015 Supplement, Attachment F, Table F-1 and letter dated July 25, 2014 transmitting South Coast Rule 1155 to EPA. As part of our action on any rules that regulate direct PM_{2.5} emissions, we evaluate the emission limits in the rule to ensure that they appropriately address CPM, as required by 40 CFR 51.1002(c). We note that the SIP-approved version of Rule 1138 requires testing according to the District's Protocol, which requires measurement of both condensable and filterable PM in accordance with SCAQMD Test Method 5.1. See Rule 1138 (adopted Nov. 14, 1997, approved July 11, 2011, see 66 FR 36170), paragraph (c)(1) and (g) and SCAQMD Protocol paragraph 3.1.³⁴ We also note that the SIP-approved version of Rule 1155 requires measurement of both condensable and filterable PM in accordance with SCAQMD Test Methods 5.1, 5.2, or 5.3 as

³⁴ See SCAQMD Protocol, *Determination of Particulate and Volatile Organic Compound Emissions from Restaurant Operations*, November 14, 1997 (available at [http://yosemite.epa.gov/R9/R9Testmethod.nsf/0/3D4DEB4D21AB4AAF882570AD005DFF69/\\$file/SC%20Rest%20emiss.pdf](http://yosemite.epa.gov/R9/R9Testmethod.nsf/0/3D4DEB4D21AB4AAF882570AD005DFF69/$file/SC%20Rest%20emiss.pdf)).

applicable. See Rule 1155 (adopted Dec. 4, 2009, approved March 16, 2015, see 80 FR 13495), paragraph (e)(6).³⁵

3. Evaluation and Proposed Action

We find that the process followed in the 2012 PM_{2.5} Plan and 2015 Supplement to identify RACM/RACT is generally consistent with the EPA's recommendations in the General Preamble. The process included compiling a comprehensive list of potential control measures for sources of direct PM_{2.5}, NO_x, VOC, SO₂, and ammonia in the South Coast. This list included measures suggested in public comments on the Plan. See 2012 PM_{2.5} Plan, Appendices VI and IV-C. As part of this process, the District, CARB, and SCAG evaluated potential controls for all relevant source categories for economic and technological feasibility, and provided justifications for the rejection of certain identified measures. *Id.* After completing this evaluation, the District stated its intent to analyze potential rule improvements with respect to rules 1115, 1130, and 1168. See 2012 PM_{2.5} Plan, Chapter 4 and Appendices VI, IV-A, and IV-C, and 2015 Supplement, Attachment D. Since submittal of the 2012 PM_{2.5} Plan in February 2013, the District has strengthened, adopted

³⁵ See SCAQMD Test Method 5.1, *Determination of Particulate Matter Emissions from Stationary Sources Using a Wet Impingement Train*, March 1989; SCAQMD Test Method 5.2, *Determination of Particulate Matter Emissions from Stationary Sources Using Heated Probe and Filter*, March 1989; and SCAQMD Test Method 5.3, *Determination of Particulate Matter Emissions from Stationary Sources Using an in-Stack Filter*, October 2005.

and submitted Rule 1130, which EPA approved on July 14, 2015 (see 80 FR 40915). EPA approved Rule 1168 as satisfying VOC RACT on December 21, 2009 (see 74 FR 67821). With respect to Rule 1115, as noted above, the emissions inventory for these sources is very small.

We have reviewed the District's determination in the 2012 PM_{2.5} Plan and 2015 Supplement that its stationary and area source control measures represent RACM/RACT for direct PM_{2.5}, NO_x, VOC, ammonia and SO₂. Our rulemaking actions on District rules generally provide the bases for our conclusions that the emission limits and/or other control requirements in the rules represent a RACT level of control, at minimum, for the relevant source categories.³⁶ We also reviewed the potential additional control measures that the District considered, including those identified by public commenters during the State/District rulemaking processes, and believe that the District adequately justified its conclusions with respect to each of these measures.

Finally, we have reviewed the analysis of current and potentially available controls for both on-road and off-road mobile sources in Appendices IV-C and VI, as well as the Attachment to Appendix VI. As we have noted in previous actions

³⁶ A full list of the District's rules, including citations to our most recent action on each rule can be found in Appendix A to this TSD.

on South Coast plans,³⁷ California is a leader in the development and implementation of stringent control measures for on-road and off-road mobile sources. Its current program addresses the full range of mobile sources in the South Coast through regulatory programs for both new and in-use vehicles and through incentive grant programs. See 2012 PM_{2.5} Plan, Appendix III, Table III-1-3. The District has also adopted measures to reduce emissions from mobile sources including its Surplus Opt-in for NO_x (SOON) rule (Rule 2449) and on-road mobile sources including its employer trip reduction rule (Rule 2202) and has a well-funded incentive grants program focused on mobile sources. See 2012 PM_{2.5} Plan, Chapter 4. Overall, we believe that the State, District, and MPO programs provide for the implementation of RACM for emissions of direct PM_{2.5} and PM_{2.5} precursors from mobile sources in the South Coast.

For the foregoing reasons, we propose to find that the 2012 PM_{2.5} Plan and 2015 Supplement provide for the implementation of all RACM/RACT that can be implemented prior to the applicable Moderate area attainment date as required by CAA sections 189(a)(1)(C) and 172(c)(1), and to approve the RACM/RACT

³⁷ See the proposed approvals of the South Coast 2007 [8-hour] Ozone Plan at 76 FR 57872, 57879 (September 16, 2011) and the 2007 AQMP addressing the 1997 PM_{2.5} NAAQS at 76 FR 41562, 41570 (July 14, 2011).

demonstration in the South Coast 2012 PM_{2.5} Plan and 2015 Supplement.³⁸

E. Major Stationary Source Control Requirements under CAA Section 189(e)

CAA section 189(e) specifically requires that the control requirements applicable to major stationary sources of direct PM_{2.5} also apply to major stationary sources of PM_{2.5} precursors, except where the Administrator determines that such sources do not contribute significantly to PM_{2.5} levels that exceed the standard in the area (see General Preamble at 13539 and 13541 to 42). The control requirements applicable to major stationary sources of direct PM_{2.5} and PM_{2.5} precursors in a Moderate PM_{2.5} nonattainment area include, at minimum, the requirements of a nonattainment new source review (NNSR) permit program meeting the requirements of CAA section 172(c)(5) (see CAA 189(a)(1)(A)).

In a separate rulemaking to approve revisions to SCAQMD's NNSR permit program, the EPA evaluated the District's discussion

³⁸ The 2012 PM_{2.5} Plan is the latest in a series of air quality plans and control strategies that the District, CARB and SCAG have developed to provide for attainment of the NAAQS in the South Coast. These plans include the 2003 PM₁₀ Plan (approved 70 FR 69081 (November 14, 2005)); the 2003 Extreme [1-hour] Ozone Attainment Plan (approved 74 FR 10176 (March 8, 2009)); the 2007 [8-hour] Ozone Plan (approved 77 FR 12674 (March 1, 2012)); the 2007 State Strategy for the 1997 Ozone and PM_{2.5} standards (approved 76 FR 69928 (November 9, 2011)); the 2007 PM_{2.5} SIP as revised in 2009 and 2011 (approved 66 FR 69928 (November 9, 2011)); and the RACT SIP submitted in 2007 (approved 73 FR 76947 (December 18, 2008)). In each of our rulemakings on these Plans, we approved a RACM and/or RACT demonstration that addressed one or more PM_{2.5} precursors.

of control requirements applicable to major stationary sources (Attachment E of the 2015 Supplement) and determined that the District's SIP-approved NNSR program satisfies the requirements of CAA section 189(e) for direct PM_{2.5} and all PM_{2.5} precursors.³⁹ Accordingly, in this action, the EPA is not addressing the NNSR control requirements that apply to major stationary sources of direct PM_{2.5} and PM_{2.5} precursors in the South Coast area under CAA section 189(e).

F. Adopted Control Strategy

1. Requirements for Control Strategies

CAA section 110(a)(2)(A) provides that each SIP "shall include enforceable emission limitations and other control measures, means or techniques... as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirement of the Act." Section 172(c)(6) of the Act, which applies to nonattainment area SIPs, is virtually identical to section 110(a)(2)(A).⁴⁰ Measures necessary to meet RACM/RACT and the additional control requirements under section 172(c)(6) must be adopted by the State in an enforceable

³⁹ See n. 29, *supra*.

⁴⁰ The language in sections 110(a)(2)(A) and 172(c)(6) is quite broad, allowing a SIP to contain any enforceable "means or techniques" that EPA determines are "necessary or appropriate" to meet CAA requirements, such that the area will attain as expeditiously as practicable, but no later than the designated date. Furthermore, the express allowance for "schedules and timetables" demonstrates that Congress understood that all required controls might not be in place when a SIP is approved.

form (General Preamble at 13541) and submitted to the EPA for approval into the SIP under CAA section 110.

Commitments approved by the EPA under CAA section 110(k)(3) are enforceable by the EPA and citizens under CAA sections 113 and 304, respectively. In the past, the EPA has approved enforceable commitments and courts have enforced actions against states that failed to comply with them.⁴¹ Additionally, if a state fails to meet its commitments, the EPA may make a finding of failure to implement the SIP under CAA section 179(a)(4), which starts an 18-month period for the state to correct the non-implementation before mandatory sanctions are imposed.

Once the EPA determines that circumstances warrant use of an enforceable commitment, the EPA considers three factors in determining whether to approve the use of an enforceable commitment to meet a CAA requirement: (a) does the commitment address a limited portion of the CAA-required program; (b) is the state capable of fulfilling its commitment; and (c) is the commitment for a reasonable and appropriate period of time.⁴²

2. Control Strategy in the 2012 PM_{2.5} Plan and 2015 Supplement

⁴¹ E.g., *American Lung Ass'n of N.J. v. Kean*, 670 F. Supp. 1285 (D.N.J. 1987), aff'd, 871 F.2d 319 (3rd Cir. 1989); *NRDC, Inc. v. N.Y. State Dept. of Env. Cons.*, 668 F. Supp. 848 (S.D.N.Y. 1987); *Citizens for a Better Env't v. Deukmejian*, 731 F. Supp. 1448, recon. granted in par, 746 F. Supp. 976 (N.D. Cal. 1990); *Coalition for Clean Air v. South Coast Air Quality Mgt. Dist.*, No. CV 97-6916-HLH, (C.D. Cal. Aug. 27, 1999).

⁴² The U.S. Court of Appeals for the Fifth Circuit upheld the EPA's interpretation of CAA section 110(a)(2)(A) and 172(c)(6) and the Agency's use and application of the three factor test in approving enforceable commitments in the Houston-Galveston ozone SIP in *BCCA Appeal Group et al. v. EPA et al.*, 355 F.3d 817 (5th Cir. 2003).

For purposes of evaluating the 2012 PM_{2.5} Plan and 2015 Supplement, we have divided the measures relied on to satisfy the applicable control requirements into two categories: baseline measures and control strategy measures.

As the term is used here, baseline measures are federal, State, and District rules and regulations adopted prior to June of 2012 for District rules, and prior to August of 2011 for CARB rules (i.e., prior to the development of 2012 PM_{2.5} Plan) that continue to achieve emissions reductions through the current attainment year of 2015 and beyond.⁴³ The Plan describes many of these measures in Chapter 4 and in Appendices III, IV-B, IV-C and VI. Reductions from these baseline measures are incorporated into the baseline inventory and reductions from the District measures in the plan are individually quantified in Appendix III, Table III-2-2B. According to the Plan, these measures provide most of the emissions reductions projected to occur between the base year of 2008 and the Moderate area attainment date of 2015. See 2012 PM_{2.5} Plan, Chapter 4, and Appendix V, and 2015 Supplement Attachment A; see also Appendix A of the TSD.

Control strategy measures are the new rules, rule revisions, commitments, and other measures that provide the

⁴³ These measures are typically rules that have compliance dates that occur after the adoption date of a plan and mobile source measures that achieve reductions as older engines are replaced through attrition (e.g., through fleet turnover).

additional increment of emissions reductions needed beyond the baseline measures to provide for attainment (when applicable), to demonstrate RFP, to meet the RACM/RACT requirement, or to provide for contingency measures.

The District included several new measures in the 2012 PM_{2.5} Plan and 2015 Supplement to provide for attainment of the 2006 PM_{2.5} NAAQS. First, the District committed to adopt, submit, and implement amendments to two District rules (Rule 444 and Rule 445) to reduce direct PM_{2.5} emissions from open burning and residential wood burning activities. See 2012 PM_{2.5} Plan, p. 4-8, Table 4-2 and SCAQMD Governing Board Resolution 12-19 (Dec. 7, 2012), p. 8, as revised by 2015 Supplement, Attachment F, Table F-1 and SCAQMD Governing Board Resolution 15-2 (Feb. 19, 2015). Second, the District committed to achieve 11.7 tpd of direct PM_{2.5} emission reductions by 2015, either from these two amended rules or from substitute measures as necessary to address any shortfall in emission reductions. *Id.* Third, the District committed to carry out technology assessments to address emissions from under-fired charbroilers and livestock waste in 2015-2016 and 2017, respectively. *Id.* Finally, the District committed to adopt revisions to its NO_x RECLAIM program to achieve an additional 2 tpd of NO_x emission reductions in 2015, as a contingency measure, and to adopt backstop measures related to ports and port-related facilities in 2015. *Id.* Following the

State's submittal of the 2012 PM_{2.5} Plan to the EPA in 2013, the District adopted amendments to Rule 444 and Rule 445 and on June 11, 2013, the District submitted these revised rules to the EPA for SIP approval, consistent with its commitments in the Plan. These measures and commitments are listed in Table 3 below.

Table 3. SCAQMD 2012 PM_{2.5} Plan and 2015 Supplement Specific Commitments				
Rule Number	Measure Number & Description	Adoption Date	Implementation Date	Emission Reductions
444	Further Reductions from Open Burning ⁴⁴	2013	2013	4.6 tpd PM _{2.5}
445	Further Reductions from Residential Wood Burning ⁴⁵	2013	2013	7.1 tpd PM _{2.5}
1138	Emissions Reductions from Under-fired Charbroilers	2017	N/A	TBD
1127	Further Ammonia Emissions From Livestock Waste	2015-2016 Technology Assessment	N/A	TBD
2002	Further NOx Reductions from RECLAIM	2015	N/A	2 tpd NOx
4001	Backstop Measures for Indirect Sources of Emissions from Ports and Port-related Facilities	2015	N/A	N/A

Source: 2012 PM_{2.5} Plan, Chapter 4, Table 4-2, as amended by 2015 Supplement, Attachment F, Table F-1.

3. Evaluation and Conclusions

The Plan provides for the majority of the emissions reductions necessary for attainment to be achieved from baseline measures. These reductions come from a combination of District,

⁴⁴ Approved on September 26, 2013, see 78 FR 59249.

⁴⁵ Ibid.

State and federal stationary and mobile source measures.⁴⁶ Over the past four decades, the District has adopted or revised almost 100 prohibitory rules that limit emissions of NO_x, SO₂, ammonia, VOC, and particulate matter from stationary sources. See Appendix A of this TSD. The vast majority of these rules are currently SIP-approved and as such, their emissions reductions are fully creditable in attainment-related SIPs. The District's most recent amendments to Rule 444 and Rule 445 further tighten the District's control strategy for direct PM_{2.5} emissions. California has also adopted standards for many categories of on- and off-road vehicles and engines as well as standards for gasoline and diesel fuels.

The State's mobile source measures fall into two categories: measures for which the State has obtained or has applied to obtain a waiver of federal pre-emption under CAA section 209 ("section 209 waiver measures" or "waiver measures") and those for which the State is not required to obtain a waiver ("non-waiver measures" or "SIP measures").

⁴⁶ These federal measures include EPA's national emissions standards for heavy duty diesel trucks (66 FR 5001 (January 18, 2001)), certain new construction and farm equipment (Tier 2 and 3 non-road engines standards, 63 FR 56968 (October 23, 1998) and Tier 4 diesel non-road engine standards, 69 FR 38958 (June 29, 2004)), and locomotives (63 FR 18978 (April 16, 1998) and 73 FR 37045 (June 30, 2008)). States are allowed to rely on reductions from federal measures in attainment and RFP demonstrations and for other SIP purposes.

Under the CAA, the EPA is charged with establishing national emission limits for mobile sources. States are generally preempted from establishing such limits except for California, which can establish these limits subject to EPA waiver or authorization under CAA section 209 (referred to herein as "waiver measures"). Over the years, the EPA has issued waivers or authorizations for many mobile source regulations adopted by CARB. California attainment and maintenance plans rely on emissions reductions from implementation of the waiver measures through use of emissions models such as EMFAC, and the South Coast 2012 PM_{2.5} Plan is no exception.

Historically, the EPA has allowed California to take credit for such "waiver" measures even though the waiver measures themselves (i.e., CARB's regulations) have not been adopted and approved as part of the California SIP. However, a recent decision by the Ninth Circuit Court of Appeals held that EPA's longstanding practice in this regard was at odds with the CAA requirement that state and local emissions limits relied upon to meet the NAAQS be enforceable by the EPA or private citizens through adoption and approval of such limits in the SIP.⁴⁷

In response to the court's decision, CARB has adopted the necessary waiver measures as revisions to the California SIP and

⁴⁷ See *Committee for a Better Arvin v. EPA*, 786 F.3d 1169 (9th Cir. 2015).

submitted them to EPA for approval.⁴⁸ EPA intends to propose action on these waiver measures in a separate rulemaking. Once approved as part of the SIP, the measures will be enforceable by the EPA or private citizens under the CAA. In today's action, the EPA is proposing to approve certain elements of the 2012 PM_{2.5} Plan and 2015 Supplement in part based on our expectation that these waiver measures will soon become federally enforceable as a result of our approval of the measures as part of the SIP.

Non-waiver measures include improvements to California's inspection and maintenance (I/M) program, SmogCheck, and cleaner burning gasoline and diesel regulations as well as the District's stationary source and mobile source rules. See TSD at Appendix A for a list of District rules and EPA actions on them.

As discussed above, we generally consider three factors in determining whether to approve the use of enforceable commitments to meet a CAA requirement. In this case, however, the 2012 PM_{2.5} Plan and 2015 Supplement do not rely on either the rule amendment commitments or the emission reduction commitments in its impracticability demonstration, RACM demonstration, RFP demonstration, or quantitative milestones, or to meet any other

⁴⁸ See letter dated August 14, 2015, from Richard W. Corey, Executive Officer, California Air Resources Board, to Jared Blumenfeld, Regional Administrator, EPA Region 9.

CAA requirement. Therefore, we do not need to apply this three-factor test before proposing to approve the District's commitments into the SIP. Approval of these commitments will strengthen the SIP and contribute to the SIP's purpose of "eliminating or reducing the severity and number of violations of the [PM_{2.5} NAAQS] and achieving expeditious attainment of such standards." See CAA 176(c)(1)(A).

We are proposing to approve the District's commitments to adopt and implement specific control measures identified in Table 4-2 in the South Coast 2012 AQMP (as amended March 4, 2015 by Table F-1 in Attachment F of the 2015 Supplement) and to achieve specified NO_x emission reductions, to the extent that these commitments have not yet been fulfilled. Specifically, we are proposing to approve the District's commitments to: (1) carry out a technology assessment to address emissions from under-fired charbroilers by 2017, (2) conduct a technology assessment for livestock waste by 2016, (3) adopt revisions to its NO_x RECLAIM program or other enforceable control measures to achieve an additional 2 tpd of NO_x emission reductions in 2015, and (4) adopt backstop measures for indirect sources of emissions from ports and port-related facilities. See 2012 PM_{2.5} Plan, p. 4-8, Table 4-2 and SCAQMD Governing Board Resolution 12-19 (Dec. 7, 2012), pp. 7-8, as revised by 2015 Supplement,

Attachment F, Table F-1 and SCAQMD Governing Board Resolution 15-2 (Feb. 19, 2015), pp. 2-3.

With respect to the commitments to adopt Rules 444 and 445 and to achieve 11.7 tpd of direct PM_{2.5} emission reductions, the District has satisfied these commitments by submitting the fully adopted rules to EPA on June 11, 2013, together with technical documentation to support its conclusion that these rules will achieve 11.7 tpd of direct PM_{2.5} emission reductions in 2015.⁴⁹ The EPA approved Rule 444 and Rule 445 on September 26, 2013 (see 79 FR 59249).⁵⁰

G. Demonstration that Attainment by the Moderate Area Attainment Date is Impracticable

1. Requirements for Attainment/Impracticability of Attainment Demonstrations

CAA section 189(a)(1)(B) requires that each Moderate area attainment plan include a demonstration that the plan provides for attainment by the latest applicable Moderate area deadline or, alternatively, that attainment by the latest applicable attainment date is impracticable. A demonstration that the plan

⁴⁹ See "Rule Evaluation Form," South Coast Rules 444 and 445, and *South Coast Air Quality Management District, Draft Final Staff Report, Proposed Amended Rule 445 - Wood-Burning Devices, Proposed Amended Rule 444 - Open Burning, May 2013*, pp. 15-16.

⁵⁰ See letter dated June 11, 2013, from Edie Chang, Deputy Executive Officer, California Air Resources Board, to Jared Blumenfeld, Regional Administrator, EPA Region 9, transmitting South Coast Rules 444 and 445.

provides for attainment must be based on air quality modeling, and the EPA generally recommends that a demonstration of impracticability also be based on air quality modeling consistent with EPA's modeling guidance (General Preamble at 13538).⁵¹

CAA section 188(c) states, in relevant part, that the Moderate area attainment date "shall be as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment..." For the South Coast area, which was initially designated as nonattainment for the 2006 PM_{2.5} standard effective December 14, 2009, the applicable Moderate area attainment date under section 188(c) is as expeditiously as practicable but no later than December 31, 2015.

In SIP submissions to demonstrate impracticability, the State should document that its required control strategy in the attainment plan represents the application of RACM/RACT to existing sources. The EPA believes it is appropriate to require adoption of all available control measures that are reasonable (i.e., technologically and economically feasible) in areas that do not demonstrate timely attainment, even where those measures cannot be implemented within the 4-year timeframe for

⁵¹ For more information on the CAA's air quality modeling requirements, please see section II.B of the TSD.

implementation of RACM under CAA section 189(a)(1)(C). The impracticability demonstration will then be based on a showing that the area cannot attain by the applicable attainment date, notwithstanding implementation of the required controls.

2. Impracticability Demonstration for the 2012 PM_{2.5} Plan and 2015 Supplement

By letter dated July 28, 2015, the District requested that the EPA reclassify the South Coast Air Basin to "Serious" for the 2006 PM_{2.5} NAAQS. The letter provided preliminary 2015 air quality monitoring data for the Mira Loma monitoring station supporting a conclusion that attainment of the 2006 PM_{2.5} standard by December 31, 2015 in the South Coast is impracticable.⁵²

Based in part on the information contained in this letter and in the 2012 PM_{2.5} Plan and Supplement, we have conducted an analysis of recent PM_{2.5} monitoring data for the South Coast PM_{2.5} nonattainment area.⁵³ For this analysis, the EPA used certified data for 2013, 2014 and preliminary data available for 2015.⁵⁴

⁵² See letter dated July 28, 2015, from Barry R. Wallerstein, Executive Officer, SCAQMD, to Elizabeth Adams, Acting Director, Air Division, US Environmental Protection Agency, Region 9.

⁵³ See Memorandum dated August 21, 2015 from Michael Flagg, U.S. EPA, Region 9 Air Quality Analysis Office, to South Coast Docket EPA-R09-OAR-2015-0204, Subject: Practicability of South Coast 2015 Attainment of the 2006 24-hour PM NAAQS ("Flagg Memo").

⁵⁴ Some data in the 2nd, 3rd, and 4th quarter of 2014 may have been impacted by a temporary lab closure and other issues at SCAQMD and are under current review. As a precautionary measure, we conducted an additional analysis on

Although the State and District originally intended for the 2012 PM_{2.5} Plan and 2015 Supplement to demonstrate that the area would attain the 2006 PM_{2.5} NAAQS by the Moderate area attainment date of December 31, 2015, more recent monitoring data show that 24-hour PM_{2.5} levels in the South Coast, with a current design value (2012-2014) of 38 µg/m³ at the Mira Loma monitoring site, continue to be above the 35 µg/m³ level of the 2006 PM_{2.5} standard, and the recent trends in the South Coast's 24-hour PM_{2.5} levels are not consistent with a projection of attainment by the end of 2015.

The EPA calculated the maximum allowed 2015 concentrations for all monitors in the area, and compared them to the estimated 2015 98th percentile. If the estimated 2015 98th percentile was greater than the maximum allowed 2015 98th percentile concentration, the EPA considered attainment at that monitoring site impracticable. For each monitor, the EPA estimated the 2015 98th percentile from the 2015 data available in AQS as of August 2015, based a number of assumptions.⁵⁵ The EPA assumed that the concentrations measured during the remainder of 2015

the impracticability of attaining by December 31, 2015 that completely excluded these data. The outcome of the analysis further supported the impracticability of attainment by the applicable attainment date. See Attachment to Flagg Memo, under "24-hour practicability" tab.

⁵⁵ EPA also assumed that the sampling rate observed so far would continue throughout the year; this yielded an estimate of the number of total samples expected for 2015, and allowed for selection of the corresponding rank of the daily data available to use as the 98th percentile in accordance with 40 CFR part 50, appendix N, section 4.5.

would be no higher than those already recorded, so the 98th percentile could be chosen from among the already recorded data. This is a conservative assumption for assessing the impracticability of attainment, since future concentrations and 98th percentiles could be higher than recorded values.

The EPA's analysis showed that during 2015, two monitoring sites (Rubidoux and Mira Loma-Van Buren) had estimated 98th percentiles greater than the maximum allowed 98th percentile concentration for 2015, which indicates that attainment of the 2006 24-hour PM_{2.5} NAAQS by the end of 2015 is impracticable.

In a separate analysis, EPA assumed that Rubidoux and Mira Loma-Van Buren collected a minimum of 351 daily samples (*i.e.* consistent with an everyday sampling frequency) in 2015, which would allow for selection of the 8th highest recorded value as the 98th percentile for 2015. This assumption resulted in selection of the lowest 98th percentile value possible for 2015, making the analysis more conservative than the previous approach. Even under this assumption, both Rubidoux and Mira Loma-Van Buren had estimated 2015 98th percentiles greater than the maximum allowed 2015 98th percentile.

3. Evaluation and Proposed Action

Our conservative assessment of recent PM_{2.5} air quality data indicates that attainment of the 2006 PM_{2.5} standard in the South

Coast by December 31, 2015 is impracticable. We have also evaluated the RACM/RACT demonstration in the 2012 PM_{2.5} Plan and 2015 Supplement and find that it provides for the expeditious implementation of all RACM that may feasibly be implemented at this time, consistent with the requirements of CAA sections 172(c)(1) and 189(a)(1)(C) for the 2006 PM_{2.5} NAAQS in the South Coast. See section II.D of this TSD. Implementation of this RACM/RACT control strategy appears, however, to be insufficient to bring the South Coast area into attainment by December 31, 2015.

Based on this evaluation, we propose to approve the State's demonstration in the 2012 PM_{2.5} Plan and 2015 Supplement that attainment of the 2006 PM_{2.5} standard by the Moderate area attainment date in the South Coast is impracticable, consistent with the requirements of CAA section 189(a)(1)(B)(ii). Based on this proposal, we propose to reclassify the South Coast as Serious nonattainment, which would trigger requirements for the State to submit a Serious area plan consistent with the requirements of subparts 1 and 4 of part D, Title I of the Act (see Section III of this TSD).

H. Reasonable Further Progress and Quantitative Milestones

1. Requirements for Reasonable Further Progress and Quantitative Milestones

CAA section 172(c)(2) requires nonattainment area plans to provide for reasonable further progress (RFP). In addition, CAA section 189(c) requires PM_{2.5} nonattainment area SIPs to include quantitative milestones to be achieved every 3 years until the area is redesignated to attainment and which demonstrate reasonable further progress (RFP), as defined in CAA section 171(1). Section 171(1) defines RFP as "such annual incremental reductions in emissions of the relevant air pollutant as are required by [Part D] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable [NAAQS] by the applicable date." Neither subpart 1 nor subpart 4 of part D, title I of the Act requires that a set percentage of emissions reductions be achieved in any given year for purposes of satisfying the RFP requirement.

RFP has historically been met by showing annual incremental emission reductions sufficient generally to maintain at least linear progress toward attainment by the applicable deadline (Addendum at 42015). As discussed in the Addendum, requiring linear progress in reductions of direct PM_{2.5} and any individual precursor in a PM_{2.5} plan may be appropriate in situations where:

- the pollutant is emitted by a large number and range of sources,

- the relationship between any individual source or source category and overall air quality is not well known,
- a chemical transformation is involved (e.g., secondary particulate significantly contributes to PM_{2.5} levels over the standard), and/or
- the emission reductions necessary to attain the PM_{2.5} standard are inventory-wide. *Id.*

The EPA's guidance in the Addendum at 42015 recommends that requiring linear progress is less appropriate in other situations, such as:

- where there are a limited number of sources of direct PM_{2.5} or a precursor,
- where the relationships between individual sources and air quality are relatively well defined, and/or
- where the emission control systems utilized (e.g., at major point sources) will result in swift and dramatic emission reductions. *Id.*

In nonattainment areas characterized by any of these latter conditions, RFP may be better represented as step-wise progress as controls are implemented and achieve significant reductions soon thereafter. For example, if an area's nonattainment problem can be attributed to a few major sources, EPA guidance indicates that "RFP should be met by 'adherence to an ambitious compliance schedule' which is likely to periodically yield significant emission reductions of direct PM_{2.5} or a PM_{2.5} precursor" (Addendum at 42015).

Plans for PM_{2.5} nonattainment areas should include detailed schedules for compliance with emission regulations in the area and provide corresponding annual emission reductions to be

realized from each milestone in the schedule (Addendum at 42016). In reviewing an attainment plan under subpart 4, EPA evaluates whether the annual incremental emission reductions to be achieved are reasonable in light of the statutory objective of timely attainment.

Section 189(c) provides that the quantitative milestones submitted by a state for an area also must be consistent with RFP for the area. Thus, the EPA determines an area's compliance with RFP in conjunction with determining its compliance with the quantitative milestone requirement. Because RFP is an annual emission reduction requirement and the quantitative milestones are to be achieved every 3 years, when a state demonstrates an area's compliance with the quantitative milestone requirement, it will demonstrate that RFP has been achieved during each of the relevant 3 years. Quantitative milestones should consist of elements that allow progress to be quantified or measured. Specifically, states should identify and submit quantitative milestones providing for the amount of emission reductions adequate to achieve the NAAQS by the applicable attainment date (Addendum at 42016). Implementation of control measures comprising the RFP plan may provide a means for satisfying the quantitative milestone requirement (see *id.*). The Act requires states to include RFP and quantitative milestones even for areas that cannot practicably attain.

2. RFP Demonstration and Quantitative Milestones in the 2012 PM_{2.5} Plan and 2015 Supplement

South Coast's 2012 PM_{2.5} Plan was originally developed in accordance with the requirements of subpart 1 and the 2007 PM_{2.5} Implementation Rule (see 75 FR 20586, April 25, 2007), which did not require a submittal of a separate RFP plan where the State submits a plan demonstrating attainment within five years of the date of designation (see 40 CFR 51.1009(b)). Because the 2012 PM_{2.5} Plan as originally adopted (in December 2012) included the State's demonstration of attainment by December 14, 2014, which is five years from the date of designation,⁵⁶ the Plan does not include a separate RFP demonstration.

Following the D.C. Circuit's January 2013 decision remanding the 2007 PM_{2.5} Implementation Rule (see *NRDC v. EPA*, 706 F.3d 428 (D.C. Cir. 2013)) and the EPA's June 2014 promulgation of Moderate area classifications in the deadline and classifications rule (see 79 FR 31566, June 2, 2014), the District developed the 2015 Supplement to address the applicable subpart 4 requirements for the 2006 PM_{2.5} NAAQS. By the time the State and District submitted this Supplement to EPA in early

⁵⁶ Section 172(a)(2)(A) of the CAA states, in relevant part, that the attainment date for a nonattainment area "shall be the date by which attainment can be achieved as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment under section [107(d)]." Because the EPA designated South Coast as nonattainment for the 2006 24-hour standard effective December 14, 2009 (74 FR 58688, November 13, 2009), under subpart 1 the area was required to attain this standard no later than December 14, 2014.

2015, less than a year remained before the December 31, 2015 Moderate area attainment date applicable to the area under subpart 4, and ambient air quality monitoring data indicated the area was very close to attaining the 2006 PM_{2.5} standard. See 2015 Supplement, p. 4. Accordingly, the 2015 Supplement does not contain a separate RFP or quantitative milestone demonstration.

3. Evaluation and Proposed Action

As a result of the *NRDC* decision remanding the 2007 PM_{2.5} Implementation Rule, the EPA has considered whether the 2012 PM_{2.5} Plan and 2015 Supplement meet the RFP requirement in section 172(c)(2) of the Act and proposes to find that they do.

The 2012 PM_{2.5} Plan demonstrates that all RACM/RACT are being implemented as expeditiously as practicable and identifies projected emission levels for 2014 that reflect full implementation of the State's and District's RACM/RACT control strategy for the area.⁵⁷ The Plan also shows steady reductions in direct PM_{2.5}, NO_x, VOC, SO_x, and ammonia emissions during the 2008-2014 period. Figures IIH-1 and IIH-2 show the emissions trajectories for direct PM_{2.5} and each PM_{2.5} precursor addressed in the control strategy which indicate generally linear

⁵⁷ See 2012 PM_{2.5} plan at Chapter 4, pp. 4-4 through 4-13, Table 4-7, and Appendix III, Table III-2-2B ("Emission Reductions (Tons per Day) in the Baseline by District Rules").

reductions. We propose, therefore, to approve the 2012 PM_{2.5} Plan and 2015 Supplement as satisfying the requirement for RFP in CAA section 172(c)(2) for the 2006 PM_{2.5} standard.

With respect to quantitative milestones, the EPA is proposing to establish December 31, 2014 as the starting point for the first 3-year period under CAA section 189(e) for the 2006 PM_{2.5} standard in the South Coast. This date is the due date for the State's submittal of attainment-related SIPs necessary to satisfy the Moderate area requirements applicable to the South Coast area.⁵⁸ Accordingly, the first quantitative milestone date for the South Coast area would be December 31, 2017 (3 years after December 31, 2014). Because this date falls well after the applicable Moderate area attainment date for the area, which is December 31, 2015, we propose to find that quantitative milestones are not necessary in this particular Moderate area plan. If, however, EPA either finalizes this proposal to reclassify the South Coast area as Serious nonattainment for the 2006 PM_{2.5} standard or determines that the area has failed to attain by the December 31, 2015 attainment date, the State and District will be required to submit a Serious area plan that

⁵⁸ Subpart 4 requires states to submit attainment plans within 18 months after nonattainment designations (CAA 189(a)(2)). Due to unusual circumstances, however, the EPA has by rule created a later deadline for submittal of attainment plan submission date for the 2006 PM_{2.5} NAAQS in order to provide states a reasonable amount of time to address the requirements of subpart 4 consistent with the NRDC decision. See 79 FR 31566 (June 2, 2014).

contains, among other things, quantitative milestones that demonstrate RFP at each milestone date, starting December 31, 2017 and at subsequent 3-year intervals until the area is redesignated to attainment.

I. Contingency Measures

1. Requirements for Contingency Measures

Under CAA section 172(c)(9), PM_{2.5} plans must include contingency measures to be implemented if an area fails to meet RFP ("RFP contingency measures") and, where the SIP includes a demonstration of attainment (as opposed to a demonstration of impracticability), contingency measures to be implemented if an area fails to attain the PM_{2.5} standards by the applicable attainment date ("attainment contingency measures"). Under subpart 4, however, the EPA interprets section 172(c)(9) in light of the specific requirements for particulate matter nonattainment areas. Section 189(b)(1)(A) differentiates between attainment plans that provide for timely attainment and those that demonstrate that attainment is impracticable. Where a SIP includes a demonstration that attainment by the applicable attainment date is impracticable, the state need only submit contingency measures to be implemented if an area fails to meet RFP.⁵⁹

⁵⁹ The EPA does not interpret the requirement for failure-to-attain contingency measures to apply to Moderate PM_{2.5} nonattainment areas that cannot

The purpose of contingency measures is to continue progress in reducing emissions while the SIP is being revised to meet the missed RFP milestone or to provide for attainment.

The principal requirements for contingency measures are:

- Contingency measures must be fully adopted rules or control measures that are ready to be implemented quickly upon failure to meet RFP or failure of the area to meet the standard by its attainment date.
- The SIP should contain trigger mechanisms for the contingency measures, specify a schedule for implementation, and indicate that the measures will be implemented without further action by the state or by the EPA. In general, we expect all actions needed to effect full implementation of the measures to occur within 60 days after the EPA notifies the state of a failure.
- The contingency measures should consist of control measures for the area that are not relied on to demonstrate attainment or RFP.
- The measures should provide for emissions reductions equivalent to approximately one year of reductions needed for RFP calculated as the overall level of reductions

practicably attain the NAAQS by the statutory attainment date. Rather, the EPA believes it is appropriate for the state to identify and adopt attainment contingency measures as part of the Serious area attainment plan that it will develop once the EPA reclassifies the area (Addendum at 42015).

needed to demonstrate attainment divided by the number of years from the base year to the attainment year.

(General Preamble at 13543 and Addendum at 42014).

2. Contingency Measures in the 2012 PM_{2.5} Plan and 2015 Supplement

Contingency measures for failure to attain are described in Chapter 6, pages 6-7 to 6-13 of the 2012 PM_{2.5} Plan. The 2012 PM_{2.5} Plan and 2015 Supplement do not include contingency measures for failure to meet RFP.

3. Evaluation and Proposed Action

Because we are proposing to approve the State's demonstration that attainment by the applicable Moderate area attainment date of December 31, 2015 is impracticable in the South Coast and to reclassify the area to serious, contingency measures for failure to attain are not required as part of this Moderate area plan. Upon reclassification of the South Coast area as a Serious area, California will be required to adopt attainment contingency measures as part of the Serious area attainment plan for the 2006 PM_{2.5} NAAQS.

We propose to find that the RFP contingency measure requirement for any RFP milestone year prior to 2014 is now moot as applied to the South Coast PM_{2.5} nonattainment area. The sole

purpose of RFP contingency measures is to provide continued progress if an area fails to meet its RFP goal. Failure to meet any milestone year target prior to 2014 would have required California to implement RFP contingency measures in the South Coast and to revise the 2012 PM_{2.5} Plan to assure that it still provided for attainment by the applicable attainment date of December 31, 2015. In this case, however, the 2012 PM_{2.5} Plan and 2015 Supplement demonstrate that actual emission levels in the years leading up to 2014 were consistent with RFP for direct PM_{2.5} and all four precursor pollutants (NO_x, SO_x, VOC and ammonia) regulated in the 2012 PM_{2.5} Plan. Accordingly, RFP contingency measures no longer have meaning or purpose, and therefore EPA proposes to find that the requirement for them is now moot.

J. Motor Vehicle Emission Budgets

1. Requirements for Motor Vehicle Emissions Budgets

CAA section 176(c) requires Federal actions in nonattainment and maintenance areas to conform to the SIP's goals of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of the standards. Conformity to the SIP's goals means that such actions will not: (1) cause or contribute to violations of a

NAAQS, (2) worsen the severity of an existing violation, or (3) delay timely attainment of any NAAQS or any interim milestone.

Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the EPA's transportation conformity rule, codified at 40 CFR part 93, subpart A. Under this rule, MPOs in nonattainment and maintenance areas coordinate with state and local air quality and transportation agencies, the EPA, FHWA, and FTA to demonstrate that an area's RTP and transportation improvement program (TIP) conform to the applicable SIP. This demonstration is typically done by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emissions budgets (budgets) contained in all control strategy SIPs. An attainment, maintenance, or RFP SIP should include budgets for the attainment year, each required RFP year, or the last year of the maintenance plan, as appropriate. Budgets are generally established for specific years and specific pollutants or precursors and must reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations (40 CFR 93.118(e)(4)(v)).

PM_{2.5} plans should identify motor vehicle emission budgets for direct PM_{2.5} and all significant PM_{2.5} precursors for each RFP

milestone year and the attainment year, if the plan demonstrates attainment. All direct PM_{2.5} SIP budgets should include direct PM_{2.5} motor vehicle emissions from tailpipe, brake wear, and tire wear. A state must also consider whether re-entrained paved and unpaved road dust or highway and transit construction dust are significant contributors and should be included in the direct PM_{2.5} budget. See 40 CFR 93.102(b) and 93.122(f) and the conformity rule preamble at 69 FR 40004, 40031-40036 (July 1, 2004).

2. Motor Vehicle Emissions Budgets in the 2012 PM_{2.5} Plan and 2015 Supplement

The 2015 Supplement revised the attainment demonstration in the 2012 PM_{2.5} Plan to identify December 31, 2015 as the applicable attainment date, and included revised budgets for 2015 for directly emitted PM_{2.5}, NO_x, and VOC. See 2015 Supplement, Attachment C, Table C-1. These budgets reflect average annual daily emissions and are calculated using EMFAC2011, the currently approved mobile source emission model for California, and transportation activity from SCAG's adopted 2012 Regional Transportation Plan (RTP), consistent with the methodology for developing the emissions inventories used in the attainment demonstration. Reductions from incentive measures were removed from the budgets, and off-model reductions for

reformulated gasoline (RFG) and SmogCheck (California's inspection and maintenance program) which were not in EMFAC2011 were included in the budgets, consistent with the emissions inventory used in the attainment demonstration.

The direct PM_{2.5} budgets included tailpipe, brake wear, and tire wear emissions as well as paved and unpaved road dust and road construction dust. No budgets for SO₂ were included in the 2012 PM_{2.5} Plan or 2015 Supplement because on-road emissions of SO₂ are a small part (11 percent) of the total SO₂ inventory. No budgets for ammonia were included in the 2012 PM_{2.5} Plan or 2015 Supplement.

3. Conclusion and Proposed Actions

We are not acting on the motor vehicle emission budgets for direct PM_{2.5}, NO_x, and VOC in the 2012 PM_{2.5} Plan or 2015 Supplement. We previously approved motor vehicle emissions budgets for the 1997 annual and 24-hour PM_{2.5} standards (76 FR 69928, 69951 (November 9, 2011)), and these budgets will continue to apply in the South Coast for transportation conformity purposes for these standards. The same budgets will also continue to apply for the 2006 24-hour PM_{2.5} standard until

we finalize our approval of new budgets in the Serious area plan for the 2006 PM_{2.5} NAAQS or find those budgets adequate.⁶⁰

J. General Conformity Budgets

1. Requirements for General Conformity

Conformity is required under CAA section 176(c) to ensure that federal actions are consistent with ("conform to") the purpose of the SIP. Conformity to the purpose of the SIP means that federal activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or interim reductions and milestones. Conformity applies to areas that are designated nonattainment and to maintenance areas.

Section 176(c)(4) of the CAA establishes the framework for general conformity. The EPA first promulgated general conformity regulations in November 1993 (40 CFR part 51, subpart W, 40 CFR part 93, subpart B). Subsequently we revised the general conformity regulations on April 5, 2010 (75 FR 17254). Besides ensuring that federal actions not covered by the transportation conformity rule will not interfere with the SIP, the general

⁶⁰ In 2012, the EPA revised the annual PM_{2.5} standard, lowering its level from 15 µg/m³ to 12 µg/m³ (78 FR 3086 (January 15, 2013)). We finalized designations for the 2012 standard in December, 2014 and these designations became effective April 15, 2015. See 80 FR 2206, January 15, 2015. For purposes of the 2012 PM_{2.5} standard, the regional conformity test requirements for all nonattainment and maintenance areas in 40 CFR 93.109 will apply one year after the effective date of EPA's nonattainment designations in accordance with section 93.102(d) and until the effective date of revocation of such NAAQS.

conformity regulations encourage consultation between the federal agency and the state or local air pollution control agencies before and during the environmental review process, as well as public notification of and access to federal agency conformity determinations, and allows for air quality review of individual federal actions.

The general conformity regulations provides three phases: (A) applicability analysis, (B) conformity determination, and (C) review process. The applicability analysis phase under 40 CFR 93.153 is used to find if a Federal action requires a conformity determination for a specific pollutant. If a conformity determination is needed, Federal agencies can use one of several methods to show that the project conforms to the SIP. In an area without a State Implementation Plan (SIP), a federal action may be shown to "conform" by demonstrating there will be no net increase in emission in the nonattainment or maintenance area from the Federal action.

In an area with a SIP, conformity to the applicable SIP can be demonstrated in one of several ways. For actions where the direct and indirect emissions exceeds the rates in 40 CFR [93.153\(b\)](#), the federal action can include mitigation efforts to bring emissions to levels below the thresholds or can show that

the action will conform by meeting any of the following requirements:

- By showing that the net emission increases caused by an action are included in the SIP,
- by documenting that the State agrees to include the emission increases in the SIP,
- through offsetting the action's emissions in the same or nearby area of equal or greater classification, or
- through an air quality modeling demonstration in some circumstances.

The general conformity regulations at 40 CFR 93.161 allow state and local air quality agencies working with federal agencies with large facilities (e.g., commercial airports, ports and large military bases) that are subject to the general conformity regulations to develop and adopt an emissions budget for those facilities in order to facilitate future conformity determinations. Such a budget, referred to as a facility-wide emission budget, may be used by federal agencies to demonstrate conformity as long as the total facility-wide budget level identified in the SIP is not exceeded.

According to 40 CFR 93.161, the state or local agency responsible for implementing and enforcing the SIP can develop and adopt an emissions budget to be used for demonstrating

conformity under 40 CFR 93.158(a)(1). The facility-wide budget must (1) be for a set time period; (2) cover the pollutants or precursors of the pollutants for which the area is designated nonattainment or maintenance; (3) the budgets are specific about what can be emitted on an annual or seasonal basis; (4) the emissions from the facility along with all other emissions in the area will not exceed the total SIP emissions budget for the nonattainment or maintenance area; (5) specific measures are included to ensure compliance with the facility-wide budget, such as periodic reporting requirements or compliance demonstrations when the Federal agency is taking an action that would otherwise require a conformity determination; (6) the budget must be submitted to EPA as a SIP revision; and (7) the SIP revision must be approved by EPA. Having or using a facility-wide emissions budget does not preclude a Federal agency from demonstrating conformity in any other manner allowed by the conformity rule.

2. General Conformity Budget in the 2012 PM_{2.5} Plan and 2015 Supplement

The 2012 PM_{2.5} Plan addresses general conformity beginning on page II-2-52 of Appendix III. The District identified the de minimis thresholds for general conformity in the South Coast as 10 tpy of VOC and NO_x because of its designation and classification as a severe ozone nonattainment area, and 100 tpy

of PM_{2.5} because of its designation and classification as a moderate PM_{2.5} nonattainment area. The District examined historical records and noted that projects requiring general conformity determinations had historically not exceeded the PM_{2.5} de minimis levels. The main pollutant of concern during project construction was NO_x, and to a lesser extent, VOC. To streamline the general conformity process for projects and to facilitate general conformity determinations, VOC and NO_x general conformity budgets of 1 tpd of NO_x and 0.2 tpd of VOC were established on an annual basis from 2013 to 2030. These general conformity budgets will be tracked via a tracking system that the District sets up for projects subject to general conformity determinations. The District will count project emissions towards the applicable general conformity budget until the budget has been exhausted. Any unused portions will not carry forward from year to year. Once the budget is exhausted, federal projects can still demonstrate conformity using other provisions in the conformity rule.

3. Evaluation and Proposed Action

We propose to approve the general conformity budgets in the 2012 PM_{2.5} Plan for NO_x and VOC for 2013 to 2030 as meeting the requirements of the CAA and the general conformity rule. If we finalize our approval of these budgets, Federal agencies can use these budgets to demonstrate that their projects conform to the

SIP through a letter from the state and District confirming that the project emissions are accounted for in the SIP's general conformity budgets. The District will be responsible for tracking emissions from all projects against the budgets. Once the budgets are used, future federal projects will need to demonstrate conformity using a different method. Any federal projects that emit criteria pollutants or pollutant precursors other than those for which general conformity budgets are established will still need to demonstrate conformity for those pollutants or precursors.

V. Proposed Reclassification as Serious Nonattainment and Serious Area SIP Requirements

A. Proposed Reclassification as Serious and Applicable Attainment Date

Section 188 of the Act outlines the process for classification of PM_{2.5} nonattainment areas and establishes the applicable attainment dates. Under the plain meaning of the terms of section 188(b)(1) of the Act, the EPA has general authority to reclassify at any time before the applicable attainment date any area that the EPA determines cannot practicably attain the standard by such date. Accordingly, section 188(b)(1) of the Act is a general expression of delegated rulemaking authority. In addition, subparagraphs (A) and (B) of section 188(b)(1) mandate that the EPA reclassify

"appropriate" PM₁₀ nonattainment areas at specified time frames (*i.e.*, by December 31, 1991 for the initial PM₁₀ nonattainment areas, and within 18 months after the SIP submittal due date for subsequent nonattainment areas). These subparagraphs do not restrict the EPA's general authority but simply specify that, at a minimum, it must be exercised at certain times.⁶¹

We have reviewed recent PM_{2.5} monitoring data for the South Coast available in the EPA's Air Quality System (AQS) database. These data show that 24-hour PM_{2.5} levels in the South Coast continue to be above 35 µg/m³, the level of the 2006 PM_{2.5} standard, and the recent trends in the South Coast's 24-hour PM_{2.5} levels are not consistent with a projection of attainment by the end of 2015. (See Memorandum dated August 21, 2015, Michael Flagg, US EPA Region 9, Air Quality Analysis Office).

In accordance with section 188(b)(1) of the Act, the EPA is proposing to reclassify the South Coast area from Moderate to Serious nonattainment for the 2006 24-hour PM_{2.5} standard of 35 µg/m³, based on the EPA's determination that the South Coast area cannot practicably attain this standard by the applicable attainment date of December 31, 2015.

⁶¹ For a general discussion of EPA's interpretation of the reclassification provisions in section 188(b)(1) of the Act, see the General Preamble, 57 FR 13498 at 13537-38 (April 16, 1992).

Under section 188(c)(2) of the Act, the attainment date for a Serious area "shall be as expeditiously as practicable but no later than the end of the tenth calendar year beginning after the area's designation as nonattainment..." The South Coast area was designated nonattainment for the 2006 PM_{2.5} standard effective December 14, 2009.⁶² Therefore, upon final reclassification of the South Coast area as a Serious nonattainment area, the latest permissible attainment date under section 188(c)(2) of the Act, for purposes of the 2006 PM_{2.5} standard in this area, will be December 31, 2019.

Under section 188(e) of the Act, a state may apply to EPA for a single extension of the Serious area attainment date by up to 5 years, which the EPA may grant if the State satisfies certain conditions. Before the EPA may extend the attainment date for a Serious area under section 188(e), the State must: (1) apply for an extension of the attainment date beyond the statutory attainment date; (2) demonstrate that attainment by the statutory attainment date is impracticable; (3) have complied with all requirements and commitments pertaining to the area in the implementation plan; (4) demonstrate to the satisfaction of the Administrator that the plan for the area includes the most stringent measures that are included in the implementation plan of any State or are achieved in practice in

⁶² See 74 FR 58688 (November 13, 2009).

any State, and can feasibly be implemented in the area; and (5) submit a demonstration of attainment by the most expeditious alternative date practicable.⁶³

B. Clean Air Act Requirements for Serious PM_{2.5} Nonattainment Area Plans

Upon reclassification as a Serious nonattainment area for the 2006 PM_{2.5} NAAQS, California will be required to submit additional SIP revisions to satisfy the statutory requirements that apply to Serious PM_{2.5} nonattainment areas, including the requirements of subpart 4 of part D, title I of the Act.

The Serious area SIP elements that California will be required to submit are as follows:

1. provisions to assure that the best available control measures (BACM), including best available control technology (BACT) for stationary sources, for the control of direct PM_{2.5} and PM_{2.5} precursors shall be implemented

⁶³ For a discussion of EPA's interpretation of the requirements of section 188(e), see "State Implementation Plans for Serious PM₁₀ Nonattainment Areas, and Attainment Date Waivers for PM₁₀ Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 59 FR 41998 (August 16, 1994) (hereafter "Addendum") at 42002; 65 FR 19964 (April 13, 2000) (proposed action on PM₁₀ Plan for Maricopa County, Arizona); 66 FR 50252 (October 2, 2001) (proposed action on PM₁₀ Plan for Maricopa County, Arizona); 67 FR 48718 (July 25, 2002) (final action on PM₁₀ Plan for Maricopa County, Arizona); and *Vigil v. EPA*, 366 F.3d 1025, amended at 381 F.3d 826 (9th Cir. 2004) (remanding EPA action on PM₁₀ Plan for Maricopa County, Arizona but generally upholding EPA's interpretation of CAA section 188(e)).

- no later than 4 years after the area is reclassified (CAA section 189(b)(1)(B));
2. a demonstration (including air quality modeling) that the plan provides for attainment as expeditiously as practicable but no later than December 31, 2019, or where the State is seeking an extension of the attainment date under section 188(e), a demonstration that attainment by December 31, 2019 is impracticable and that the plan provides for attainment by the most expeditious alternative date practicable and no later than December 31, 2024 (CAA sections 188(c)(2) and 189(b)(1)(A));
 3. plan provisions that require reasonable further progress (RFP) (CAA 172(c)(2));
 4. quantitative milestones which are to be achieved every 3 years until the area is redesignated attainment and which demonstrate RFP toward attainment by the applicable date (CAA section 189(c));
 5. provisions to assure that control requirements applicable to major stationary sources of PM_{2.5} also apply to major stationary sources of PM_{2.5} precursors, except where the state demonstrates to the EPA's satisfaction that such sources do not contribute significantly to PM_{2.5} levels

that exceed the standard in the area (CAA section 189(e));

6. a comprehensive, accurate, current inventory of actual emissions from all sources of PM_{2.5} and PM_{2.5} precursors in the area (CAA section 172(c)(3));
7. contingency measures to be implemented if the area fails to meet RFP or to attain by the applicable attainment date (CAA section 172(c)(9)); and
8. A revision to the nonattainment new source review (NSR) program to lower the applicable "major stationary source"⁶⁴ thresholds from 100 tons per year (tpy) to 70 tpy (CAA section 189(b)(3)).

Final reclassification of the South Coast area as Serious nonattainment for the 2006 PM_{2.5} standard may also lower the *de minimis* threshold under the CAA's General Conformity requirements (40 CFR part 93, subpart B) from 100 tpy to 70 tpy for PM_{2.5} and PM_{2.5} precursors. See 80 FR 15339 at 15441.

In March of 2015, the EPA issued a proposed rulemaking to provide guidance to states on the attainment planning requirements in subparts 1 and 4 of part D, title I of the Act

⁶⁴ For any Serious area, the terms "major source" and "major stationary source" include any stationary source that emits or has the potential to emit at least 70 tons per year of PM₁₀ (CAA sections 189(b)(3)).

that apply to areas designated nonattainment for PM_{2.5}.⁶⁵ In the interim, before the PM_{2.5} implementation rule is finalized, the EPA encourages the State to review the proposed rulemaking as well as the General Preamble and Addendum for guidance on how to implement these statutory requirements in the South Coast PM_{2.5} nonattainment area.⁶⁶

C. Statutory Deadline for Submittal of the Serious Area Plan

For an area reclassified as a Serious nonattainment area before the applicable attainment date under CAA section 188(b)(1), section 189(b)(2) requires the State to submit the required BACM provisions "no later than 18 months after reclassification of the area as a Serious Area" and to submit the required attainment demonstration "no later than 4 years after reclassification of the area to Serious." Section 189(b)(2) establishes outer bounds on the SIP submission deadlines and does not preclude the EPA's establishment of earlier deadlines as necessary or appropriate to assure consistency among the required submissions and to implement the statutory requirements.

If a final reclassification of the South Coast PM_{2.5} nonattainment area to Serious becomes effective by early 2016,

⁶⁵ See 80 FR 15339, "Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements," March 23, 2015.

⁶⁶ See *generally* the General Preamble, 57 FR 13498 (April 16, 1992) and Addendum, 59 FR 41998 (August 16, 1994).

the Act provides the State with up to 18 months after this date (i.e., until mid-2017) to submit the required BACM provisions. Because an up-to-date emissions inventory serves as the foundation for a state's BACM and BACT determinations, the EPA also proposes to require the State to submit the emissions inventory required under CAA section 172(c)(3) within 18 months after the effective date of final reclassification. Similarly, because an effective evaluation of BACM and BACT measures requires evaluation of the precursor pollutants that must be controlled to provide for expeditious attainment in the area, if the State chooses to submit an optional precursor insignificance demonstration to support a determination to exclude a PM_{2.5} precursor from the required control measure evaluations for the area, the EPA proposes to require the State to submit any such demonstration by this same date. An 18-month timeframe for submission of these plan elements is consistent with both the timeframe for submission of BACM provisions under CAA section 189(b)(2) and the timeframe for submission of subpart 1 plan elements under section 172(b) of the Act.⁶⁷

The EPA proposes to require the State to submit the attainment demonstration required under section 189(b)(1)(A) and

⁶⁷ Section 172(b) requires the EPA to establish, concurrent with nonattainment area designations, a schedule extending no later than 3 years from the date of the nonattainment designation for states to submit plans or plan revisions meeting the applicable requirements of sections 110(a)(2) and 172(c) of the CAA.

the remaining attainment-related plan elements no later than three years after the effective date of final reclassification or by December 31, 2018, whichever is earlier. The attainment-related plan elements that we propose to require within the same 3-year timeframe as the attainment demonstration are: (1) the RFP demonstration required under section 172(c)(2); (2) the quantitative milestones required under section 189(c); (3) any additional control measures necessary to meet the requirements of section 172(c)(6); and (4) the contingency measures required under section 172(c)(9). Although section 189(b)(2) generally provides for up to 4 years after a discretionary reclassification for the State to submit the required attainment demonstration, it is appropriate in this case for the EPA to establish an earlier SIP submission deadline to assure timely implementation of the statutory requirements.

The EPA designated the South Coast area as nonattainment for the 2006 PM_{2.5} standard effective December 14, 2009.⁶⁸ On January 4, 2013, the D.C. Circuit Court of Appeals issued its decision in *NRDC* remanding EPA's 2007 PM_{2.5} Implementation Rule and directing the EPA to repromulgate it in accordance with the requirements of subpart 4.⁶⁹ In response to the *NRDC* decision, the EPA undertook a rulemaking to classify all PM_{2.5}

⁶⁸ 74 FR 58688 (November 13, 2009).

⁶⁹ *NRDC v. EPA*, 706 F.3d 428 (D.C. Cir. 2013).

nonattainment areas as Moderate nonattainment and begin implementing the PM_{2.5} NAAQS under subpart 4. Effective July 2, 2014, the EPA classified all areas previously designated nonattainment for the 1997 and/or 2006 PM_{2.5} NAAQS as Moderate nonattainment under subpart 4 and established a December 31, 2014 deadline for states to submit Moderate area SIP elements required for these areas.⁷⁰ These unusual circumstances have significantly shortened the timeframes ordinarily allowed under the Act for the EPA and the states to address the statutory SIP requirements following reclassification of an area from Moderate to Serious nonattainment under subpart 4.⁷¹

Our proposal to require the State to submit the attainment demonstration and other attainment-related plan elements no later than three years after reclassification or by December 31, 2018, whichever is earlier, is supported by the overall structure and purpose of the attainment planning requirements in

⁷⁰ 79 FR 31566 (June 2, 2014). The EPA notes that some states had already made SIP submissions intended to meet applicable nonattainment plan requirements as interpreted in the remanded 2007 PM_{2.5} Implementation Rule. Accordingly, the new SIP submission deadline provided the opportunity for states to revise or supplement their prior submissions, as necessary or appropriate to meet subpart 4 requirements.

⁷¹ For areas designated nonattainment after November 15, 1990, section 188(b)(1)(B) of the Act requires that the EPA "reclassify appropriate areas within 18 months after the required date for the State's submission of a SIP for the Moderate Area." Read together with section 189(a)(2)(B), which requires states to submit Moderate Area plans within 18 months after nonattainment designations, section 188(b)(1)(B) generally contemplates that EPA would reclassify appropriate areas as Serious nonattainment no later than 36 months (3 years) after initial nonattainment designations. Under these circumstances, the required Serious area attainment demonstration would normally be submitted no later than 7 years after initial designation (4 years after reclassification), which is 3 years before the latest permissible attainment date under CAA section 188(c)(2).

part D, title I of the Act. Section 188(b)(1) provides the EPA with discretionary authority to reclassify an area as Serious nonattainment at any time before the applicable attainment date, based on a determination that the area cannot practicably attain the NAAQS by the Moderate area attainment date. Under normal circumstances, where the EPA reclassifies an area within 3 years after its designation as nonattainment, as contemplated in CAA section 188(b)(1)(B),⁷² the required BACM provisions would be due no later than 18 months after reclassification (*i.e.*, no later than 4.5 years after designation) and the required attainment demonstration would be due no later than 4 years after reclassification (*i.e.*, no later than 7 years after designation).⁷³ In these circumstances, the Serious area attainment demonstration would be due at least 3 years before the outermost Serious area attainment date for the area,⁷⁴ thus providing the EPA with sufficient time to evaluate the submitted plan well in advance of the statutory attainment date. However, in situations such as this, where the EPA reclassifies an area pursuant to its discretionary reclassification authority *later*

⁷² *Id.*

⁷³ CAA section 189(b)(2). By contrast, for an area that is reclassified as Serious by operation of law *after* the applicable attainment date, which may be as late as the end of the 6th year after the area's designation as nonattainment (CAA section 188(b)(1)), the state must submit both the BACM provisions and the Serious area attainment demonstration no later than 18 months after reclassification. *Id.*

⁷⁴ Under CAA section 188(c)(2), the latest permissible attainment date for a Serious PM_{2.5} nonattainment area is no later than the end of the tenth calendar year beginning after the area's designation as nonattainment.

than 3 years after the area's designation as nonattainment, it is appropriate for the EPA to consider the outermost Serious area attainment date applicable to the area in setting a deadline for the State to submit the required elements of the Serious area attainment plan.

Upon reclassification as Serious, the South Coast PM_{2.5} nonattainment area will be subject to a Serious area attainment date no later than December 31, 2019.⁷⁵ Sections 189(b)(1)(A) and 189(c) of the Act require the State to submit a demonstration that the plan provides for attainment of the PM_{2.5} standard by this date, including quantitative milestones which are to be achieved every 3 years until the area is redesignated attainment and which demonstrate reasonable further progress toward attainment by this date. If the EPA reclassifies the South Coast area effective in early 2016 and allows the State 4 years following reclassification (*i.e.*, potentially until early 2020) to submit the attainment demonstration and related plan elements, these Serious area plan provisions would not be due until after the latest permissible statutory attainment date for the area (December 31, 2019) has come and gone. Thus, under such circumstances, allowing the maximum 4-year timeframe for submission of the required attainment demonstration and related plan elements would frustrate the statutory design and severely

⁷⁵ *Id.*

constrain the EPA's ability to ensure that the State is implementing the applicable statutory requirements in a timely manner.

Therefore, it is appropriate for the EPA to require California to submit the required attainment demonstration and other attainment-related plan elements no later than 3 years after final reclassification or by December 31, 2018, whichever is earlier, so that the EPA has adequate time to review and act on the State's submission prior to the latest permissible attainment date for the area under section 188(c)(2), which is December 31, 2019. This timeframe for the required Serious area plan submissions is appropriate to assure consistency among the required submissions and to implement the statutory requirements in a timely manner.

Finally, the EPA proposes to require that the State submit revised nonattainment NSR program requirements no later than 18 months after final reclassification. The Act does not specify a deadline for the State's submission of SIP revisions to meet nonattainment NSR program requirements to lower the "major stationary source" threshold from 100 tons per year (tpy) to 70 tpy (CAA section 189(b)(3)) and to address the control requirements for major stationary sources of PM_{2.5} precursors

(CAA section 189(e))⁷⁶ following reclassification of a Moderate PM_{2.5} nonattainment area as Serious nonattainment under subpart 4. Pursuant to the EPA's gap-filling authority in CAA section 301(a) and to effectuate the statutory control requirements in section 189 of the Act, the EPA proposes to require the State to submit these nonattainment NSR SIP revisions, as well as any necessary analysis of and additional control requirements for major stationary sources of PM_{2.5} precursors, no later than 18 months after the effective date of final reclassification of the South Coast area as Serious nonattainment for the 2006 PM_{2.5} standard. This due date will ensure that necessary control requirements for major sources are established well in advance of the required attainment demonstration. An 18-month timeframe for submission of the NNSR SIP revisions also aligns with the statutory deadline for submission of BACM and BACT provisions and the broader analysis of PM_{2.5} precursors for potential controls on existing sources in the area.

VI. Reclassification of Reservation Areas of Indian Country

Seven Indian tribes are located within the boundaries of the South Coast PM_{2.5} nonattainment area. These tribes are listed in Table 4 below.

⁷⁶ Section 189(e) requires that the control requirements applicable to major stationary sources of PM_{2.5} also apply to major stationary sources of PM_{2.5} precursors, except where the state demonstrates to the EPA's satisfaction that such sources do not contribute significantly to PM_{2.5} levels that exceed the standard in the area.

Table 4. Indian Tribes Located in South Coast PM_{2.5} Nonattainment Area
Cahuilla Band of Indians
Morongo Band of Cahuilla Mission Indians
Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation
Ramona Band of Cahuilla
San Manuel Band of Serrano Mission Indians of the San Manuel Reservation
Santa Rosa Band of Cahuilla Indians
Soboba Band of Luiseno Indians

We have considered the relevance of our proposal to reclassify the South Coast area as Serious nonattainment for the 2006 PM_{2.5} standard to each tribe located within the South Coast area. We believe that the same facts and circumstances that support the proposal for the non-Indian country lands also support the proposal for reservation areas of Indian country⁷⁷ and any other area of Indian country where the EPA or a tribe has demonstrated that the tribe has jurisdiction located within the South Coast nonattainment area. The EPA is therefore proposing to exercise our authority under CAA section 188(b)(1)

⁷⁷ "Indian country" as defined at 18 U.S.C. 1151 refers to: "(a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same."

to reclassify areas of Indian country geographically located in the South Coast nonattainment area. Section 188(b)(1) broadly authorizes the EPA to reclassify a nonattainment area - including any Indian country located within such an area - that EPA determines cannot practicably attain the relevant standard by the applicable attainment date.

Directly-emitted PM_{2.5} and its precursor pollutants (NO_x, SO₂, VOC, and ammonia) are emitted throughout a nonattainment area and can be transported throughout that nonattainment area. Therefore, boundaries for nonattainment areas are drawn to encompass both areas with direct sources of the pollution problem as well as nearby areas in the same airshed. Initial classifications of nonattainment areas are coterminous with, that is, they match exactly, their boundaries. The EPA believes this approach best ensures public health protection from the adverse effects of PM_{2.5} pollution. Therefore, it is generally counterproductive from an air quality and planning perspective to have a disparate classification for a land area located within the boundaries of a nonattainment area, such as the reservation areas of Indian country contained within the South Coast PM_{2.5} nonattainment area. Moreover, violations of the 2006 PM_{2.5} standard, which are measured and modeled throughout the nonattainment area, as well as shared meteorological conditions,

would dictate the same conclusion. Furthermore, emissions increases in portions of a PM_{2.5} nonattainment area that are left classified as Moderate could counteract the effects of efforts to attain the standard within the overall area because less stringent requirements would apply in those Moderate portions relative to those that would apply in the portions of the area reclassified to Serious.

Uniformity of classification throughout a nonattainment area is thus a guiding principle and premise when an area is being reclassified. Equally, if the EPA believes it is likely that a given nonattainment area will not attain the PM_{2.5} standard by the applicable attainment date, then it may be an additional reason why it is appropriate to maintain a uniform classification within the area and thus to reclassify the reservation areas of Indian country and any other area where the EPA or a tribe has demonstrated that a tribe has jurisdiction together with the balance of the nonattainment area. In this particular case, we are proposing to determine, based on the State's demonstration and current ambient air quality trends, that the South Coast nonattainment area cannot practicably attain the 2006 PM_{2.5} standard by its applicable Moderate area attainment date of December 31, 2015.

In light of the considerations outlined above that support retention of a uniformly-classified PM_{2.5} nonattainment area, and our finding that it is impracticable for the area to attain by the applicable attainment date, we propose to reclassify the areas of Indian country within the South Coast nonattainment area as Serious nonattainment for the 2006 PM_{2.5} standard.

The effect of reclassification would be to lower the applicable "major source" threshold for purposes of the nonattainment new source review program and the Title V operating permit program from its current level of 100 tpy to 70 tpy (CAA sections 189(b)(3) and 501(2)(B)), thus subjecting more new or modified stationary sources to these requirements. The reclassification may also lower the *de minimis* threshold under the CAA's General Conformity requirements (40 CFR part 93, subpart B) from 100 tpy to 70 tpy. Under the General Conformity requirements, Federal agencies bear the responsibility of determining conformity of actions in nonattainment and maintenance areas that require Federal permits, approvals, or funding. Such permits, approvals or funding by Federal agencies for projects in these areas of Indian country may be more difficult to obtain because of the lower *de minimis* thresholds.

Given the potential implications of the reclassification, the EPA has contacted tribal officials to invite government-to-

government consultation on this rulemaking effort.⁷⁸ The EPA specifically solicits additional comment on this proposed rule from tribal officials. We note that although eligible tribes may seek EPA approval of relevant tribal programs under the CAA, none of the affected tribes will be required to submit an implementation plan to address this reclassification.

VII. Summary of Proposed Actions and Request for Public Comment

Under CAA section 110(k)(3), the EPA is proposing to approve the following elements of the 2012 PM_{2.5} Plan and 2015 Supplement submitted by California to address the CAA's Moderate area planning requirements for the 2006 PM_{2.5} NAAQS in the South Coast nonattainment area:

1. the 2008 base year emissions inventories as meeting the requirements of CAA section 172(c)(3);
2. the reasonably available control measures/reasonably available control technology demonstration as meeting the requirements of CAA sections 172(c)(1) and 189(a)(1)(C);
3. the reasonable further progress demonstration as meeting the requirements of CAA section 172(c)(2);
4. the demonstration that attainment by the Moderate area attainment date of December 31, 2015 is impracticable as meeting the requirements of CAA section 189(a)(1)(B)(ii); and

⁷⁸ We sent letters to seven tribal officials regarding government-to-government consultation on September 4, 2015 and September 30, 2015.

5. SCAQMD's commitments to adopt and implement specific rules and measures in accordance with the schedule provided in Chapter 4 of the 2012 PM_{2.5} Plan, as revised by Table F-1 of Attachment F of the 2015 Supplement, to achieve the emissions reductions shown therein, and to submit these rules and measures to ARB for transmittal to EPA as a revision to the SIP, as stated on pp. 7-8 of SCAQMD Governing Board Resolution 12-19.

In addition, the EPA is proposing to approve the general conformity budgets for NO_x and VOC for years 2013-2030 listed in Appendix III, p. III-2-53 of the 2012 PM_{2.5} Plan as meeting the requirements of the CAA and the general conformity rule.

Finally, pursuant to CAA section 188(b)(1), the EPA is proposing to reclassify the South Coast PM_{2.5} nonattainment area, including the reservation areas of Indian country and any other area where the EPA or a tribe has demonstrated that a tribe has jurisdiction within the South Coast area, as Serious nonattainment for the 2006 PM_{2.5} standard based on the agency's determination that the South Coast area cannot practicably attain the standard by the Moderate area attainment date of December 31, 2015. Upon final reclassification as a Serious area, California will be required to submit, within 18 months after the effective date of the reclassification, provisions to assure that BACM shall be implemented no later than 4 years

after the date of reclassification and to submit, within 3 years after the effective date of reclassification or by December 31, 2018, which is sooner, a Serious area plan that satisfies the requirements of part D of title I of the Act. This plan must include a demonstration that the South Coast area will attain the 2006 PM_{2.5} standard as expeditiously as practicable but no later than December 31, 2019, or by the most expeditious alternative date practicable and no later than December 31, 2024, in accordance with the requirements of CAA sections 189(b) and 188(e).

In addition, because the EPA is proposing to similarly reclassify reservation areas of Indian country and any other area of Indian country where EPA or a tribe has demonstrated that the tribe has jurisdiction within the South Coast PM_{2.5} nonattainment area as Serious nonattainment for the 2006 PM_{2.5} standard, consistent with our proposed reclassification of the surrounding non-Indian country lands, the EPA has invited consultation with interested tribes concerning this issue. We note that although eligible tribes may seek the EPA's approval of relevant tribal programs under the CAA, none of the affected tribes will be required to submit an implementation plan to address this reclassification.

We will accept comments from the public on these proposals for the next 30 days. The deadline and instructions for

submission of comments are provided in the “Dates” and “Addresses” sections at the beginning of this preamble.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review, and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This proposed action would approve State law as meeting Federal requirements and would not impose additional requirements beyond those imposed by State law. Additionally, the proposed rule would reclassify the South Coast nonattainment

area as Serious nonattainment for the 2006 PM_{2.5} NAAQS, and would not itself regulate small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, and does not significantly or uniquely affect small governments. This proposed action would approve State law as meeting Federal requirements and would not impose additional requirements beyond those imposed by State law. Additionally, the proposed action would reclassify the South Coast nonattainment area as Serious nonattainment for the 2006 PM_{2.5} NAAQS, and would not itself impose any federal intergovernmental mandate. The proposed action would not require any tribes to submit implementation plans.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Coordination with Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires the EPA to develop an accountable

process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes."

Seven Indian tribes are located within the boundaries of the South Coast nonattainment area for the 2006 PM_{2.5} NAAQS: the Cahuilla Band of Indians, the Morongo Band of Cahuilla Mission Indians, the Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, the Ramona Band of Cahuilla, the San Manuel Band of Serrano Mission Indians of the San Manuel Reservation, the Santa Rosa Band of Cahuilla Indians, and the Soboba Band of Luiseno Indians.

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The EPA has concluded that this proposed rule might have tribal implications for the purposes of Executive Order 13175, but would not impose substantial direct costs upon the tribes, nor would it preempt Tribal law. We note that only one of the tribes located in the South Coast nonattainment area (the Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation) has requested eligibility to administer programs under the CAA. The proposed rule would affect the EPA's implementation of the new source review program because of the lower "major source" threshold triggered by reclassification (70 tons per year for direct PM_{2.5} and precursors to PM_{2.5}). The proposed rule may also affect new or modified stationary sources proposed in these areas that require Federal permits, approvals, or funding. Such projects are subject to the requirements of EPA's General Conformity rule, and Federal permits, approvals, or funding for the projects may be more difficult to obtain because of the lower *de minimis* thresholds triggered by reclassification.

Given the potential implications, the EPA contacted tribal officials during the process of developing this proposed rule to provide an opportunity to have meaningful and timely input into its development. On September 4, 2015, we sent letters to leaders of the seven tribes with areas of Indian country in the South Coast nonattainment area inviting government-to-government

consultation on the rulemaking effort. We requested that the tribal leaders, or their designated consultation representatives, provide input or request government-to-government consultation by October 4, 2015. We intend to continue communicating with all seven tribes located within the boundaries of the South Coast nonattainment area for the 2006 PM_{2.5} NAAQS as we move forward in developing a final rule. The EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This proposed action is not subject to Executive Order 13045 because it would approve a state action implementing a federal standard, and reclassify the South Coast nonattainment area as Serious nonattainment for the 2006 PM_{2.5} NAAQS, triggering Serious area planning requirements under the CAA. This proposed action does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211, Actions that Significantly Affect Energy Supply, Distribution, or Use

This proposed action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population

The EPA has determined that this action will not have potential disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. This proposed action would only approve a state action implementing a federal standard, and reclassify the South Coast nonattainment area as Serious nonattainment for the 2006 PM_{2.5} NAAQS, triggering additional Serious area planning requirements under the CAA.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Oxides of nitrogen,

Particulate matter, Reporting and recordkeeping requirements,
Sulfur Oxides, Volatile organic compounds.

AUTHORITY: 42 U.S.C. 7401 *et seq.*

Dated: September 30, 2015. Jared Blumenfeld,
Regional Administrator,
EPA Region 9

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